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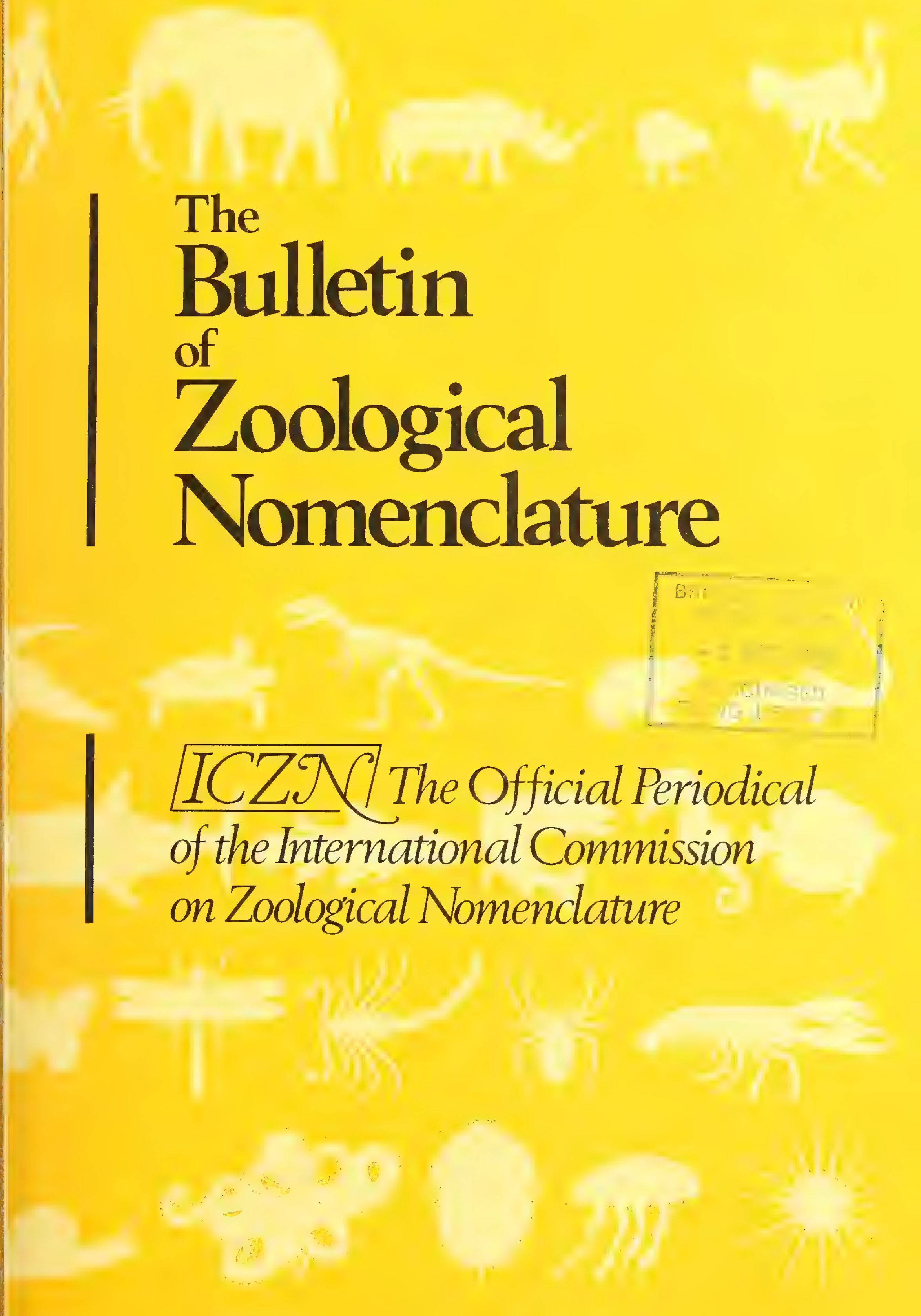

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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Notices

(a) *Invitation to comment.* The Commission is authorized to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 46, part 4 (published on 19 December 1989):

(1) *Anas arcuata* Horsfield, 1824 (currently *Dendrocygna arcuata*; Aves, Anseriformes): proposed conservation of the specific name. (Case 2746). G.F. Mees.

(2) *Strophomena* Blainville, 1825 (Brachiopoda): proposed adoption of authorship and designation of *Leptaena planumbona* Hall, 1847 as the type species. (Case 2747). L.R.M. Cocks.

(3) *Plusia falcifera* Kirby, 1837 (currently *Anagrapha falcifera*; Insecta, Lepidoptera): proposed conservation of the specific name. (Case 2748). J.D. Lafontaine & R.W. Poole.

(4) *Eristalis* Latreille, 1804, *Helophilus* Meigen, 1822 and *Xylota* Meigen, 1822 (Insecta, Diptera): proposed conservation. (Case 2749). T. Zatwarnicki.

(5) *Epizoanthus* Gray, 1867 (Cnidaria, Anthozoa): proposed conservation. (Case 2750). J.S. Ryland & A. Muirhead.

(6) *Paolia vetusta* Smith, 1871 (Insecta, Protorthoptera): proposed rejection of the neotype following rediscovery of the holotype. (Case 2751). C.G. Maples.

(d) *Rulings of the Commission.* Each Opinion, Declaration or Direction published in the *Bulletin* constitutes an official ruling of the International Commission on Zoological Nomenclature, by virtue of the votes recorded, and comes into force on the day of publication of the *Bulletin*.

Election of the Vice-President of the International Commission on Zoological Nomenclature

The members of the Commission have elected Dr H.G. COGGER as Vice-President. Dr Cogger is from the Australian Museum, Sydney, and was elected to the Commission in 1976. His research concerns the reptiles and amphibians of Australia and the western Pacific region.

The International Commission on Zoological Nomenclature and its publications

The International Commission on Zoological Nomenclature was established in 1895 by the III International Congress of Zoology, and at present consists of 28 zoologists from 19 countries whose interests cover most of the principal divisions (including palaeontology) of the animal kingdom. The Commission is under the auspices of the International Union of Biological Sciences (IUBS), and its members are elected at open meetings held in conjunction with Congresses of IUBS or of its associated bodies. Casual vacancies may be filled between Congresses. Nominations for membership may be sent to the Commission Secretariat at any time.

The International Code of Zoological Nomenclature has one fundamental aim, which is to provide 'the maximum universality and continuity in the scientific names of animals compatible with the freedom of scientists to classify all animals according to taxonomic judgements'. The latest (Third) Edition was published in 1985 by the International Trust for Zoological Nomenclature, acting on behalf of the Commission. Suggested amendments to the *Code* should be sent to the Secretariat.

Observance of the rules in the *Code* enables a biologist to arrive at the valid name for any animal taxon between and including the ranks of subspecies and super-family. Its provisions can be waived or modified in their application to a particular case when strict adherence would cause confusion; however, this must never be done by an individual but only by the Commission, acting on behalf of all zoologists. The Commission takes such action in response to proposals submitted to it; applications should follow the instructions on the inside back cover of the *Bulletin*, and assistance will be given by the Secretariat.

The Bulletin of Zoological Nomenclature is published four times each year. It contains applications for Commission action, as described above; their publication is an invitation for any person to contribute comments or counter-suggestions, which may also be published. The Commission makes a ruling (called an Opinion) on a case only after a suitable period for comments. All Opinions are published in the *Bulletin*, which also contains articles and notes relevant to zoological nomenclature; such contributions may be sent to the Secretariat.

The Commission's rulings are summarised in *The Official Lists and Indexes of Names and Works in Zoology*; a single volume covering the period 1895–1985 was published in 1987, and a free supplement covering 1986–1988 was issued in 1989. Copies may be obtained from the Secretariat.

In addition to dealing with applications and other formal matters, the Commission's Secretariat is willing to help with advice on any question which may have nomenclatural (as distinct from purely taxonomic) implications.

The International Trust for Zoological Nomenclature is a charity (non-profit making company) registered in the U.K. The Secretariat of the Commission is at present based in London, and the Trust is established there for legal reasons to handle the financial affairs of the Commission. The sale of publications (*Code*, *Bulletin* and *Official Lists and Indexes*) covers only part of the costs of the service given to zoology by the Commission. Support is given by academies, research councils, associations and societies from a number of countries, and also by individuals, but despite this assistance the level of income remains a severe restraint and donations to the Trust are gratefully received.

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Official Lists and Indexes of Names and Works in Zoology—Supplement

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895, up to 1985. There are about 9,900 entries.

In the three years 1986–1988, 544 names and three works were added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments to entries in the 1987 volume. This supplement was circulated with Vol. 46, Part 1 of the *Bulletin of Zoological Nomenclature*. Copies can be obtained without charge from either of the following addresses, from which the *Official Lists and Indexes* can be ordered at the price shown (postage included). Payment should accompany orders.

The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £60 or $110

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The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

Copies may be ordered from the International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or $35 (postage included). Payment should accompany orders.

Instructions to Authors

Authors submitting applications for publication in the *Bulletin of Zoological Nomenclature* are particularly requested to follow the instructions printed on the inside back cover of the *Bulletin*. It would help to reduce the time that it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in ASCII text on IBM PC format 5.25 inch 360KB (preferable) or 1.2MB, or 3.5 inch 1.4MB floppy disk. Disks will be returned after copying. It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references.

Case 2714

Pleuractis Verrill, 1864 (Cnidaria, Anthozoa): proposed designation of *Fungia paumotensis* Stutchbury, 1833 as the type species, with conservation of *Lobactis* Verrill, 1864

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Abstract. The purpose of this application is to conserve usage of the generic names of the mushroom corals *Pleuractis* Verrill, 1864 and *Lobactis* Verrill, 1864, by designating *Fungia paumotensis* Stutchbury, 1833 as the type species of *Pleuractis.*

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1. The species *Fungia scutaria* Lamarck, 1801 (p. 370) is the type species of *Pleuractis* Verrill, 1864 (p. 52). Verrill stated that he selected it as type, and based the designation on specimens from Singapore which were collected by Captain W. H. A. Putnam. At present, ten specimens from this collection, labelled as *Pleuractis scutaria*, are in the coral collection of the Museum of Comparative Zoology at Cambridge, Massachusetts. Examination of this material (MCZ 5398) revealed that all these specimens were misidentified by Verrill and actually belong to *Fungia paumotensis* Stutchbury, 1833 (p. 495, pl. 32, figs. 6a–b).

2. The syntypes of *Fungia scutaria* Lamarck, 1801 (no type locality given) were illustrated by Seba (1759, pl. 112, figs. 28–30). One of these figures (fig. 29) resembles only slightly the species currently known as *F. scutaria.* Seba's figures 28 and 30 resemble specimens of *F. cyclolites* Lamarck, 1801 and *F. fungites* (Linnaeus, 1758) respectively. The whereabouts of Seba's specimens are unknown. In Lamarck's collection at the Muséum National d'Histoire Naturelle at Paris there are two corals from the Red Sea which are labelled *Fungia scutaria.* One of these (MNHN 297) was designated neotype of that species by myself (1989, p. 131). This neotype represents *F. scutaria* as it has been interpreted since Döderlein's (1902) taxonomic revision of *Fungia* (see Hoeksema, 1989).

3. The holotype of *F. paumotensis* (type locality 'Paumotos' = Tuamotu Archipelago, S. Pacific) is believed to be lost. Stutchbury (1833) did not indicate whether it was deposited in a museum or left in the field after the illustrations were made. It is neither in the British Museum (Natural History) nor in the collection of the Linnean Society of London, where it most likely would have been deposited. The illustrations of the holotype given by Stutchbury (1833, pl. 32, figs. 6a–b) are not clear enough to show its identity. Therefore in my taxonomic revision of the FUNGIIDAE (1989, p. 145) I designated a neotype (BMNH 1939.1.2.31) from Aku Maru, Gambier Islands, Tuamotu Archipelago. This neotype represents *F. paumotensis* as it has been interpreted since Döderlein's (1902) revision.

4. The species *Fungia dentigera* Leuckart, 1841 (p. 48, pl. 3, figs. 1–2) is the type species by original designation of *Lobactis* Verrill, 1864 (p. 52). In Döderlein's (1902)

revision of *Fungia*, and in subsequent works, *F. dentigera* has been considered a junior subjective synonym of *F. scutaria* (see Hoeksema, 1989, p. 130).

5. Wells (1966, p. 238), in his generic revision of the FUNGIIDAE, united *Pleuractis* and *Lobactis* under the name *Pleuractis* as a subgenus in *Fungia* Lamarck, 1801. I believe (1989, pp. 129–130, 134, 256–257) that the true *Fungia scutaria* differs from the *Pleuractis* species and should be classified with another subgenus. Since *Fungia dentigera*, a junior subjective synonym of *F. scutaria*, is the type species of *Lobactis*, *F. scutaria* should be classified with *Lobactis*. Hence maintenance of the nominal species *F. scutaria* Lamarck as the type species of *Pleuractis*, ignoring the misidentification by Verrill (1864), will cause confusion.

6. This case is being referred to the Commission under Article 70b of the Code. As a result of the neotype designation of *Fungia scutaria*, the type species of *Pleuractis* and *Lobactis* are synonymous, and because of Wells' first reviser action in 1966, *Pleuractis* has precedence over *Lobactis*. To conserve the existing usage of both *Pleuractis* and *Lobactis*, I propose as type species of *Pleuractis* the species actually considered by Verrill (1864) and wrongly named in its type fixation, namely *Fungia paumotensis*.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous designations of type species for the nominal genus *Pleuractis* Verrill, 1864 and to designate *Fungia paumotensis* Stutchbury, 1833 as the type species;

(2) to place the following names on the Official List of Generic Names in Zoology:
   (a) *Pleuractis* Verrill, 1864 (gender: feminine), type species by designation in (1) above *Fungia paumotensis* Stutchbury, 1833;
   (b) *Lobactis* Verrill, 1864 (gender: feminine), type species by original designation *Fungia dentigera* Leuckart, 1841 (a junior subjective synonym of *Fungia scutaria* Lamarck, 1801);

(3) to place the following names on the Official List of Specific Names in Zoology:
   (a) *paumotensis* Stutchbury, 1833, as published in the binomen *Fungia paumotensis* and as defined by the neotype designated by Hoeksema (1989) (specific name of the type species of *Pleuractis* Verrill, 1864, by designation in (1) above);
   (b) *scutaria* Lamarck, 1801, as published in the binomen *Fungia scutaria* and as defined by the neotype designated by Hoeksema (1989) (senior subjective synonym of *Fungia dentigera* Leuckart, 1841, the type species of *Lobactis* Verrill, 1864).

Acknowledgements

Prof. Dr L. B. Holthuis is gratefully acknowledged for his advice.

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Case 2547

CYMATIINAE Iredale, 1913 (1854) (Mollusca, Gastropoda) and CYMATIINAE Walton in Hutchinson, 1940 (Insecta, Heteroptera): proposal to remove the homonymy

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Abstract. The purpose of this application is to remove the homonymy between the molluscan family-group name CYMATIINAE Iredale, 1913 (1854) and the insect family-group name CYMATIINAE Walton in Hutchinson, 1940. It is proposed that the latter be altered to CYMATIAINAE by changing the stem of the type genus *Cymatia* from CYMATI- to CYMATIA-.

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1. The gastropod family-group name CYMATIIDAE was established by Iredale (1913, p. 56). The type genus of the family is *Cymatium* [Röding], 1798 (p. 129; see Direction 48 for authorship of this name) with the type species *Murex femorale* Linnaeus, 1758 (p. 749) by subsequent designation by Dall (1904, p. 133). CYMATIIDAE is a junior synonym of RANELLIDAE Gray, 1854 (p. 37), but Beu & Cernohorsky (1986) have conserved it under Article 40b as a subfamily name that replaces LAMPUSIIDAE Newton, 1891; LAMPUSIIDAE (published as 'LAMPUSIDAE') is based on *Lampusia* Schumacher, 1817, a junior subjective synonym of *Monoplex* Perry, 1811, a subgenus of *Cymatium*. *Lampusia* had become a junior subjective synonym of *Cymatium*, *Septa* and *Monoplex* before Iredale (1913) introduced CYMATIINAE because *Cymatium* Röding, 1798 was the oldest relevant nominal genus. LAMPUSIIDAE (proposed by Newton in 1891) was rejected (i.e. not adopted) by Iredale because of this junior synonymy of *Lampusia*; it is true that Iredale did not explicitly 'replace' LAMPUSIIDAE by CYMATIINAE, but he was working nearly 50 years before the Code applied priority to family-group names. CYMATIINAE has become generally accepted (see BZN **32:** 8–11 and Beu & Cernohorsky, 1986). It is therefore appropriate to apply Article 40b to this case.

2. Recently Ponder & Warén (1988, p. 302) have listed the subfamily name NEPTUNELLINAE Gray, 1854 (p. 38) as a senior synonym of CYMATIINAE Iredale. This name (which Ponder & Warén spelled as "NEPTUNELLININAE") and that of its type genus *Neptunella* Gray, 1854 (p. 38) have never been used; *Neptunella* is a junior objective synonym of *Cabestana* [Röding], 1798 (p. 130), which is closely related to *Cymatium*. Because it has been totally unused there is clearly an even stronger case for rejecting NEPTUNELLINAE than for LAMPUSIIDAE, in the spirit of Article 40b (see para. 1).

We cite CYMATIIDAE as Iredale, 1913 (1854); the double date citation is awkward but is given by Recommendation 40A of the Code.

3. CYMATIINI was established as a tribe of CORIXINAE (waterboatmen; Insecta) by Walton in Hutchinson (1940, p. 344) with the type genus *Cymatia* Flor, 1860, p. 799. The type species of this genus is *Sigara coleoptrata* Fabricius, 1777 (p. 298) by subsequent designation by Kirkaldy (1898, p. 252). China (1943) upgraded the taxon, listing it as the subfamily CYMATIINAE. Hungerford (1948, p. 99) also gave the taxon subfamily status (incorrectly stating 'CYMATIINAE subfamily new'), and this has been accepted in modern classifications almost universally (a representative list is held by the Commission Secretariat).

4. Although the family-group names by Iredale (1913) and Walton in Hutchinson (1940) are not based on identically spelled generic names, the family-group names are homonymous. The existence of this homonymy was pointed out by Jaczewski (1971) and Cernohorsky & Beu (1972) but, despite the clear statements in Articles 52 and 60, the junior homonym has so far not been replaced. Jaczewski (1971) further stated that the corixid subfamily CYMATIINAE 'includes only one genus, *Cymatia* Flor, 1860, which has no synonymic names or ever had any'. However, Jansson (1982) has since described the genus *Cnethocymatia*, so there are two genera in the subfamily at present.

5. In our opinion, as neither *Cymatia* Flor nor CYMATIINAE Walton in Hutchinson has any synonyms which could be used to form a name to replace the junior homonym (Article 55 b (i)), the case would be solved with the least confusion by following Article 55b(ii) and including all the letters of the generic name *Cymatia* in the stem of the junior homonymic name.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that for the purposes of Article 29 the stem of the generic name *Cymatia* Flor, 1860 is CYMATIA-;

(2) to place the following names on the Official List of Generic Names in Zoology:
  (a) *Cymatium* [Röding], 1798 (gender: neuter), type species by subsequent designation by Dall (1904) *Murex femorale* Linnaeus, 1758;
  (b) *Cymatia* Flor, 1860 (gender: feminine), type species by subsequent designation by Kirkaldy (1898) *Sigara coleoptrata* Fabricius, 1777;

(3) to place the following names on the Official List of Specific Names in Zoology:
  (a) *femorale* Linnaeus, 1758, as published in the binomen *Murex femorale* (specific name of the type species of *Cymatium* [Röding], 1798);
  (b) *coleoptrata* Fabricius, 1777, as published in the binomen *Sigara coleoptrata* and as interpreted by the lectotype designated by Jansson (1986) (specific name of the type species of *Cymatia* Flor, 1860);

(4) to place the following names on the Official List of Family-Group Names in Zoology:
  (a) CYMATIINAE Iredale, 1913 (1854), type genus *Cymatium* [Röding], 1798;
  (b) CYMATIAINAE Walton in Hutchinson, 1940, type genus *Cymatia* Flor, 1860 (spelling emended in (1) above);

(5) to place on the Official Index of Rejected and Invalid Family-Group names in Zoology the name CYMATIINAE Walton in Hutchinson, 1940 (spelling emended to CYMATIAINAE in (1) above).

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Case 2641

Limax fibratus Martyn, 1784 et *Nerita hebraea* Martyn, 1786 (actuellement *Placostylus fibratus* et *Natica hebraea*; Mollusca, Gastropoda): conservation proposée pour les noms spécifiques; et *Placostylus* Beck, 1837: désignation proposée de *L. fibratus* comme espèce-type

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Abstract. The purpose of this application is to conserve two gastropod names, *Limax fibratus* Martyn, 1784 and *Nerita hebraea* Martyn, 1786, which were published in *The Universal Conchologist* by T. Martyn (1784–1787), and to designate *L. fibratus* as the type species of *Placostylus* Beck, 1837. Although in use, the specific names are at present formally unavailable because Martyn's work has been rejected as being non-binominal (Opinion 456, March 1957).

Résumé. L'objet de la présente requête est la conservation de deux noms de gastéropodes, *Limax fibratus* Martyn, 1784 et *Nerita hebraea* Martyn, 1786, publiés dans *The Universal Conchologist* de T. Martyn (1784–1787), et la désignation de *L. fibratus* comme espèce-type de *Placostylus* Beck, 1837. Bien qu'actuellement utilisés, ces noms spécifiques sont actuellement indisponibles, le travail de Martyn ayant été rejeté au motif qu'il n'est pas binominal (Opinion 456, mars 1957).

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1. En plaçant *The Universal Conchologist* (Martyn, 1784–1787) sur l'Index Officiel des Travaux Rejetés et Invalides en Nomenclature Zoologique, la Commission Internationale précisait dans son Opinion 456 "consideration will be given to applications for the validation of individual names.... if submitted by specialists with adequate data regarding the names concerned". Des malacologistes néo-zélandais ont demandé la validation de neuf noms utilisés pour des espèces de leur région. Leur requête a été acceptée (Opinion 479, septembre 1957). Le but de la présente requête est de demander de rendre disponibles deux autres noms actuellement utilisés en dépit de l'Opinion 456. Dall (1907, p. 187) a montré que les planches 1–80 (volumes 1 et 2) de *The Universal Conchologist* ont paru en 1784, les planches 81–120 (volume 3) en 1786, et les planches 121–160 (volume 4 et dernier) probablement au printemps 1787.

2. Le nom *Limax fibratus*, fondé sur la figure de Martyn (1784, pl. 25), est actuellement utilisé dans la combinaison *Placostylus fibratus* pour un gastéropode Bulimulidae de Nouvelle-Calédonie. Pendant la première partie du 19ème siècle, la nomenclature de cette espèce est confuse, et les discussions font usage des noms suivants, généralement considérés comme des synonymes de *Placostylus fibratus*: *Helix aurismalchi* Müller, 1774, *Voluta elongata* Lightfoot, 1786, *Bulimus bovinus* Bruguière, 1792, *Ellobium australe* Röding, 1798, *Voluta australis* Dillwyn, 1817, *Auricula aurantiaca* Schumacher, 1817, *Helix aurisbovinus* Férussac, 1821 et *Bulimus bootis* Menke, 1828.

3. *Helix aurismalchi* Müller, 1774 (p. 112) est introduit pour désigner une coquille de la collection Spengler, pour laquelle Müller ne donne ni localité, ni figure, ni référence à une figure publiée. Bruguière, 1789 (p. 319) a utilisé le nom dans la combinaison *Bulimus aurismalchi* et Gmelin, 1791 (p. 3437) dans la combinaison *Voluta aurismalchi*. Bruguière et Gmelin font référence à Müller et à Chemnitz (1786, pl. 121, figs 1037–1038), qui figure une coquille de la collection Spengler, probablement l'holotype de Müller. Cette coquille n'est pas présente dans la collection Spengler, conservée au Zoologisk Museum, København (T. Schiøtte, comm. pers.). Après Pfeiffer (1848, p. 139), ce nom n'a jamais été cité autrement que comme synonyme subjectif de *Placostylus* (ou *Bulimus*) *fibratus*, bien qu'il lui soit antérieur.

4. *Voluta elongata* Lightfoot, 1786 (pp. 30, 143) est fondé sur la figure (sic) 25 du volume 1 de Martyn (1784), avec la localité "New Caledonia". Il s'agit donc d'un synonyme objectif de *Limax fibratus*. Ce nom n'a jamais été utilisé, ni même cité, dans un quelconque travail avant 1967 et, suite à l'Opinion 456, seuls Rehder (1967, p. 9: "Since the name *fibratus* is unavailable, the adoption of Lightfoot's name should prove acceptable") et Pain (1988) en ont recommandé l'adoption.

5. *Bulimus bovinus* Bruguière, 1792 (p. 345) est fondé avec des références à Lister (1770, pl. 1058, fig. 8; pour les dates des différentes éditions de Lister voir Wilkins (1957, p. 196)), Favanne (1780, pl. 65, fig. V; 1784, p. 20, no. 81) et Chemnitz (1786, pl. 121, figs. 1039–1040). Favanne (1784, p. 20) et Chemnitz (p. 42) donnent respectivement la Nouvelle-Hollande (=Australie) et la Nouvelle-Calédonie pour origine de leur coquille; Bruguière indique la Nouvelle-Hollande comme origine de l'espèce. Pfeiffer (1848, p. 139) place le nom *bovinus* dans la synonymie de *Bulimus fibratus* de Nouvelle-Calédonie, mais Petit (1853) considère qu'il s'agit d'une espèce distincte, synonyme de *Bulimus shongii* Lesson, 1831 (p. 321, pl. 7, figs. 4 et 5) de Nouvelle-Zélande (pour les dates de publication du travail de Lesson voir Sherborn & Woodward (1906, p. 336)). L'opinion de Petit est suivie par la plupart des auteurs de la deuxième moitié du 19ème siècle, qui utilisent donc pour l'espèce néo-zélandaise le synonyme antérieur *Bulimus* (ou *Placostylus*) *bovinus* Bruguière (13 utilisations citées par Pilsbry (1900, p. 22)). Pilsbry (1900, p. 40) au contraire conclut à la synonymie de *Bulimus bovinus* avec *P. fibratus* de Nouvelle-Calédonie et restaure l'usage du nom *P. shongii* pour l'espèce de Nouvelle-Zélande. Après Pilsbry, je n'ai pas trouvé de citation du nom *bovinus* Bruguière autrement que dans la synonymie de *Placostylus fibratus*.

6. En fait, l'examen des figures originales auxquelles se réfère Bruguière ne permet pas d'identifier avec certitude *bovinus*. La coquille figurée par Lister (1770) est méconnaissable et la figure de Favanne (1780) parait copiée sur celle de Lister. Compte tenu de la date (1774) de la découverte de la Nouvelle-Calédonie par Cook, elle n'est certainement pas celle d'un Bulimulidae de Nouvelle-Calédonie; elle pourrait être celle d'un Bulimulidae ou d'un Acavidae sud-américain. Malgré la localisation Nouvelle-Calédonie de la coquille figurée par Chemnitz, la très grande variabilité intraspécifique des espèces de ce genre, le manque de détails sur la figure originale de Chemnitz, et l'absence de matériel type (absent dans la partie de la collection Chemnitz conservée au Zoologisk Museum, København; T. Schiøtte, comm. pers.) rendent l'interprétation du nom subjective. Les figures 1039–1040 peuvent tout aussi bien représenter une forme de *P. fibratus* qu'une forme de *P. porphyrostomus* (Pfeiffer, 1851), partiellement sympatrique avec *P. fibratus*.

7. *Ellobium australe* Röding, 1798 (p. 106) est introduit sans description, mais avec références à *Voluta aurismalchi* Gmelin et aux figures 1039–1040 de Chemnitz. En l'absence d'une désignation formelle de figure type, le nom de Röding peut donc être considéré comme un synonyme objectif ou de *Helix aurismalchi* Müller, 1774 ou de *Bulimus bovinus* Bruguière, 1792. Dillwyn (1817, p. 500) utilise le nom dans la combinaison *Voluta australis*.

8. *Auricula aurantiaca* Schumacher, 1817 (p. 228) est un nom introduit sans description. La référence aux figures 1039–1040 de Chemnitz et au nom *Bulimus bovinus* "Bosc" conduit à traiter ce nom comme un synonyme objectif de *Bulimus bovinus* Bruguière, 1792. *Helix aurisbovinus* Férussac, 1821 (p. 57) est un nom introduit sans description, et attribué par Férussac à Bruguière. Les références aux figures 1039–1040 de Chemnitz conduisent à interpréter ce binôme comme une émendation injustifiée ou un nomen novum pro *Bulimus bovinus* Bruguière. *Bulimus bootis* Menke, 1828 (p. 14) est introduit sans description, mais validé par références aux noms *Helix aurisbovina* Férussac, *Auricula bovina* "Lamarck" et *Voluta aurismalchi* "Gmelin". *Bulimus bootis* doit être considéré comme un nomen novum pro *Bulimus bovinus* Bruguière, 1792.

9. Le nom *fibratus* n'a jamais été remplacé par l'un quelconque de ces synonymes, et l'usage du nom *fibratus* a été continu chez les zoologistes (voir, par exemple, Gassies, 1863, p. 243, pl. 4, fig. 1; Kobelt, 1891, pp. 47–49, pl. 21, figs. 1–5; Cockerell, 1929, pp. 74–76; et Franc, 1956, pp. 152–153, pl. 18, fig. 195). Après la publication de l'Opinion 456, peu d'auteurs ont publié sur les *Placostylus* de Nouvelle-Calédonie, mais tous ont continué à utiliser le nom *fibratus*: Pain (1958), Solem (1961, p. 472), Starmühlner (1970, p. 312), Chérel (1980, p. 36), et Parkinson et al. (1987, p. 244). Seuls Rehder (1967) et Pain (1988, dans une analyse d'ouvrage) ont contesté cet usage (voir paragraphe 4 ci-dessus). L'opinion de Solem, qui ignorait le nom *P. elongatus*, mérite d'être rapportée ici: "The International Commission on Zoological Nomenclature (Opinion 456) invalidated Martyn's names as a group. . . . I prefer to retain Martyn's name rather than to try to determine the identity of one of the ill-figured and badly described synonyms from the late 1700's and early 1800's. While this is against the letter of the International Code, it is a much more practical solution".

10. Le nom de genre *Placostylus* a été introduit par Beck (1837, p. 57), pour y placer la seule espèce *P. bootis* (Menke, 1828). Beck inclut sous ce nom une liste synonymique comprenant "*Voluta australis* Dw.", "*Bul. auris bovinus* Brug." et "*Bul. shongi* (sic) Lesson", et donne pour origine géographique de *bootis* "Nov. Zeel.". Après Beck, les auteurs ont considéré que son concept de *bootis* comprenait aussi *fibratus* Martyn, 1784, et bien que ce nom ne figure pas dans la liste originale de synonymes, von Martens in Albers (1860, p. 185) a désigné *fibratus* Martyn comme espèce type de *Placostylus*. Cette procédure, erronée, a cependant été ultérieurement retenue par certains auteurs dont Pilsbry (1900, pp. 19, 21) et Solem (1961, p. 472), probablement à cause de l'incertitude d'interprétation entourant le nom *bootis*. *Bulimus shongii* Lesson, 1831 est l'espèce type, par désignation originale, de *Maoristylus* Haas, 1935 (p. 188). Les noms *Placostylus* et *Maoristylus* sont maintenant universellement acceptés avec pour espèce type respectivement *bootis* (compris subjectivement comme un synonyme de *fibratus*) et *shongii*; voir, par exemple, Zilch (1960, p. 497) et Powell (1979, p. 350 et références). Ainsi qu'il a été vu plus haut, *Bulimus bootis* doit être interprété comme un nomen novum pro *B. bovinus* Bruguière, mais le nom *bovinus* n'est pas formellement reconnaissable.

11. J'en viens maintenant à la deuxième espèce concernée par cette requête. Le nom *Nerita hebraea* (*Nerita litteris Hebraicis natatus* sur les tables de certains exemplaires de l'ouvrage de Martyn: voir Dall, 1907, p. 191), fondé sur la figure de Martyn (1786, pl. 109), est actuellement employé dans la combinaison *Natica hebraea* ou *Naticarius hebraeus* pour un gastéropode Naticidae commun sur le plateau continental de Méditerranée.

12. Pendant la première moitié du 19ème siècle, le statut de l'espèce est incertain; elle est citée sous des noms très divers, soit avec un statut d'espèce soit avec un statut de variété de *Natica millepunctata* (Lamarck, 1822), bien que le nom lamarckien lui soit postérieur. La taxonomie et la nomenclature des Natices des côtes françaises sont révisées par Recluz (1852, p. 264), qui stabilise l'utilisation du nom *Natica hebraea* (Martyn). A partir de cette époque, l'usage de ce nom devient général, aussi bien dans les catalogues locaux que dans les ouvrages de détermination. Bucquoy, Dautzenberg et Dollfus (1883, pp. 139–140) donnent une liste de citations antérieures à 1882. Exemples de ces utilisations anciennes du nom *hebraea*: Locard (1886, p. 273), Hidalgo (1916, pp. 479, 486), Coen (1933, p. 26). L'invalidation en 1957 du travail de Martyn *The Universal Conchologist* est passée inaperçue des auteurs européens, qui n'ont pas remarqué que cette décision affectait la nomenclature de cette espèce méditerranéenne et le nom *hebraea* a continué d'être employé régulièrement dans la littérature. Les ouvrages ou articles suivants sont parmi les plus récents à maintenir cet usage: Sabelli et Spada (1980, p. 101), Nordsieck (1982, p. 186, avec l'orthographe *hebräus*), Villa (1986, p. 15). Une liste de huit autres références est déposée au secrétariat de la Commission. Plusieurs de ces références sont celles de guides très utilisés pour l'identification des espèces de la faune méditerranéenne.

13. Le premier synonyme plus récent de *Natica hebraea* (Martyn, 1786) est *Natica maculata* (von Salis, 1793, p. 379), publié dans la combinaison *Nerita maculata*. Une confusion dans l'utilisation de ce nom est due au fait que Deshayes (1838, p. 645) a publié la combinaison *Natica maculata* sans aucune référence à von Salis. Les deux noms *Natica maculata* (von Salis, 1793) et *Natica maculata* Deshayes, 1838 sont homonymes secondaires et synonymes subjectifs. Le nom *maculata* est bien plus rarement utilisé que *hebraea* et, au cours des 30 dernières années, je n'ai pu en trouver que deux utilisations: Ghisotti (1972, p. 81) et Koronéos (1979, p. 10). Ces auteurs n'invoquent cependant pas l'invalidité du nom de Martyn pour justifier l'emploi du nom *maculata*.

14. Dans l'intérêt de la stabilité de la nomenclature et au nom d'un usage continu, il est demandé à la Commission Internationale de Nomenclature Zoologique:

(1) d'user de ses pleins pouvoirs pour:
  (a) supprimer le nom spécifique *aurismalchi* Müller, 1774, publié dans le binôme *Helix aurismalchi*, au regard du Principe de Priorité mais pas au regard du Principe d'Homonymie;
  (b) régler que les noms spécifiques suivants sont disponibles:
    (i) *fibratus* Martyn, 1784, publié dans le binôme *Limax fibratus*;
    (ii) *hebraea* Martyn, 1786, publié dans le binôme *Nerita hebraea*;
  (c) écarter toutes les désignations antérieures d'espèce-type du genre *Placostylus* Beck, 1837 et désigner *Limax fibratus* Martyn, 1784 comme espèce-type;
(2) de placer sur la Liste Officielle des Noms Génériques en Zoologie le nom *Placostylus* Beck, 1837 (genre: masculin), avec pour espèce-type par désignation en (1)(c) ci-dessus *Limax fibratus* Martyn, 1784;

(3) de placer sur la Liste Officielle des Noms Spécifiques en Zoologie les noms suivants:
  (a) *fibratus* Martyn, 1784, publié dans le binôme *Limax fibratus* (nom spécifique de l'espèce-type de *Placostylus* Beck, 1837 par désignation en (1)(c) ci-dessus);
  (b) *hebraea* Martyn, 1786, publié dans le binôme *Nerita hebraea*;

(4) de placer sur l'Index Officiel des Noms Spécifiques Rejetés et Invalides en Zoologie les noms suivants:
  (a) *aurismalchi* Müller, 1774, publié dans le binôme *Helix aurismalchi* et supprimé en (1)(a) ci-dessus;
  (b) *elongata* Lightfoot, 1786, publié dans le binôme *Voluta elongata*, synonyme objectif postérieur de *fibratus*, Martyn, 1784, publié dans le binôme *Limax fibratus*.

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Case 2558

Proptera Rafinesque, 1819 (Mollusca, Bivalvia): proposed conservation

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Abstract. The purpose of this application is to conserve the name *Proptera* Rafinesque, 1819, for a genus of North American freshwater mussels, by the suppression of the senior objective synonym *Potamilus* Rafinesque, 1818.

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1. A fairly concise, historical review of *Proptera* and *Potamilus* has been presented by Clarke (1986). The genus *Potamilus* was described briefly with a list of 24 undescribed species, one of them named *alatus*, arranged in five unnamed subgenera (Rafinesque, 1818a, p. 355), all nomina nuda. Rafinesque stated that he had '... collected and described over 30 species, the whole of which appear to be new' and appended an abbreviation of his name, 'Raf.', at the end of the species list for each of the three presented genera (*Potamilus*, *Pleurocera*, and *Ambloxis*). Rafinesque later (1818b, p. 107) noted *Potamilus* as a new genus of fluviatile bivalves with 34 unnamed species and emended the gender of the name to feminine, as *Potamila*.

2. In 1819 Rafinesque (p. 420) briefly described *Proptera* as a subgenus of *Unio*, and in it listed three nomina nuda: '*alata, phaiedra, pallida*, etc.'.

3. In 1820 Rafinesque noted his previous use of *Potamilus* as a catch-all genus, similar to his contemporaries' use of *Unio*, and abandoned it to be replaced by the 'system' he initially had outlined in 1819 and which he now presented. He also replaced *Proptera* with *Metaptera* (p. 299: he considered the former name to be inappropriate due to his earlier misinterpretation of the anterior-posterior orientation of the mussels), described *M. megaptera* (p. 300), included (p. 300) *U. alatus* Say, 1817 (unpaginated, pl. 4, fig. 2; not 1816: see Johnson, 1975) under *Metaptera*, and speculated that *U. ochraceus* Say, 1817 and *U. cariosus* Say, 1817 were in this genus. *Metaptera megaptera* is a junior subjective synonym of *U. alatus* (synonymy originally proposed by Conrad, 1834, p. 67; justification in Clarke, 1973 , p. 101), and *Metaptera* is invalid as a junior objective synonym of *Proptera*.

4. *Potamilus alatus* Rafinesque, 1818 and *U. (Proptera) alata* Rafinesque, 1819 are not Say's species but are nomina nuda. Rafinesque did not explicitly refer Say's *alatus* to the genus-group under consideration until 1820 (p. 300), as *Metaptera alata*.

5. Herrmannsen (1847, p. 41) designated *U. alatus* Say as the type of *Metaptera*, thereby also establishing it as the type of *Proptera* (Article 67h). In 1969 (p. 24) Morrison stated: '*Potamilus alatus* Say, 1817 (monotype of *Potamilus* in 1818)', thereby establishing *alatus* Say as the type of *Potamilus*. Morrison was the first person to include a species in *Potamilus*. This action has made *Potamilus* Rafinesque, 1818 and *Proptera* Rafinesque, 1819 objective synonyms.

6. The taxon in question has been incorporated in modern systems of unionid nomenclature since Baker (1898, p. 97) as *Metaptera*, and recognized as *Proptera* since Simpson (1900, p. 566). Morrison's 1969 assumption that *Potamilus alatus* Rafinesque was the same as Say's species and his resurrection of *Potamilus* were not consistent with any usage by Rafinesque or subsequent authors. Rather than representing any sort of taxonomic revision, Morrison's action appears to have been solely to reintroduce an unused Rafinesque name.

7. In accordance with the Code, Clarke (1986, p. 62) has noted the availability of *Potamilus* under Article 12a, and the validity of Morrison's type designation under the provision of Article 69a, particularly sections i(1), ii and vii.

8. In 1971 the name *Potamilus* was adopted by Valentine & Stansbery (p. 25), and its usage has been promulgated by the latter, largely through personal communications to various authors. The name *Proptera* has remained in common usage within the literature, included in faunal surveys such as those of Clarke (1973, 1981); Johnson (1980); Gordon (1981, 1985); van der Schalie (1981), and in systematic reviews of unionids by Haas (1969a, p. 415), Heard & Guckert (1971, p. 340), Burch (1975, p. 21), and Davis & Fuller (1981, p. 219). In 1980 Vokes (p. 90) listed both generic names as valid, and Haas (1969b, p. N454) considered *Potamilus* to be a possible synonym of *Ligumia* Swanson, 1840. Johnson (1980, p. 128) discussed the usage of *Proptera* v. *Potamilus*, noting that priority of authorship was not in question. Citing Article 23, he concluded that resurrection of *Potamilus* had resulted in nomenclatural instability and confusion. These problems have not been resolved.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Potamilus* Rafinesque, 1818 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Proptera* Rafinesque, 1819 (gender: feminine), type species by subsequent designation by Herrmannsen (1847) *Unio alatus* Say, 1817;

(3) to place on the Official List of Specific Names in Zoology the name *alatus* Say, 1817, as published in the binomen *Unio alatus* (specific name of the type species of *Proptera* Rafinesque, 1819);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Potamilus* Rafinesque, 1818, as suppressed in (1) above.

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Case 2692

Mirochernes Beier, 1930 (Arachnida, Pseudoscorpionida): proposed confirmation of *Chelanops dentatus* Banks, 1895 as the type species

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Abstract. The purpose of this application is to confirm that the nominal species *Chelanops dentatus* Banks, 1895 is the type of the pseudoscorpion genus *Mirochernes* Beier, 1930. In his 1930 definition of *Mirochernes*, Beier had misidentified the species he was studying which, in 1932, he named *Semeiochernes militaris.*

1. Banks (1895, p. 6) described a new species of pseudoscorpion from U.S.A., *Chelanops dentatus*, based on a single male 'without locality (Hubbard); but probably from Florida'. Hoff (1947, p. 502) referred to this specimen (in the Museum of Comparative Zoology, Harvard) as the lectotype but he subsequently (1958, p. 26) referred to 'the original specimen on which he [Banks] described the species'. The status of the specimen as holotype of *Chelanops dentatus* is unequivocal.

2. Beier (1930, p. 216) established a genus *Mirochernes* and designated *Chelanops dentatus* Banks, 1895 as the type (and only) species. Beier's concept of '*C. dentatus*' was based upon a male from Juan Vinas, Costa Rica (in the Naturhistorisches Museum, Wien). Beier later (1932, p. 180) designated the same specimen as the holotype of his new species *Semeiochernes militaris*, which is the type species by original designation (and monotypy) of *Semeiochernes* Beier, 1932 (p. 180). At the same time, Beier (1932, p. 182) altered his definition of *Mirochernes* to conform with Banks' concept of *Chelanops dentatus*. It is probable that, when he saw the first diagrams of *Chelanops dentatus* [as *Chernes dentatus* (Banks)] published by Chamberlin (1931, p. 124), Beier realised the error he had made in his 1930 paper in misidentifying the male specimen from Juan Vinas as *Chelanops dentatus*. (The name *Semeiochernes militaris* is printed in Beier, 1933, p. 541, as nov. gen., nov. sp.; however, publication of this work had been delayed and Beier's 1932 work has priority, although this does not affect the case.)

3. *Mirochernes dentatus* (Banks) has been reported several times in the primary literature, and was redescribed by Hoff (1949, p. 478). It appears to be widely distributed in eastern U.S.A. (Hoff, 1958, p. 25) and, at present, is the only species included in the genus. *Mirochernes* is thus used in the sense of Beier (1932).

4. It is clear that the nominal type species of *Mirochernes* Beier, 1930 was based upon a misidentified specimen and the case is referred to the Commission under Article 70(b).

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to confirm that the nominal species *Chelanops dentatus* Banks, 1895 is the type species of the genus *Mirochernes* Beier, 1930;

(2) to place on the Official List of Generic Names in Zoology the name *Mirochernes* Beier, 1930 (gender: masculine), type species by original designation, as confirmed in (1) above, *Chelanops dentatus* Banks, 1895;

(3) to place on the Official List of Specific Names in Zoology the name *dentatus* Banks, 1895, as published in the binomen *Chelanops dentatus* (specific name of the type species of *Mirochernes* Beier, 1930).

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Case 2725

Holostaspis subbadius var. *robustulus* Berlese, 1904 (currently *Macrocheles robustulus*; Arachnida, Acarina): proposed conservation as the correct spelling of the specific name

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Abstract. The purpose of this application is to conserve the widely used name *Macrocheles robustulus* (Berlese, 1904) for a mite of probable health importance. The specific name was originally published as *rubustulus*, presumably as a typographical error, but that spelling has not been used for over 30 years and then only by one author.

1. Berlese (1904) described a new species of mite, *Holostaspis subbadius*. He simultaneously described two new varieties of this species, var. *scutatus* and var. *rubustulus* (p. 264). The name *rubustulus* is spelt only once in this paper and was not subsequently used by Berlese either with this spelling or as *robustulus*.

2. The spelling *rubustulus* has been used in published works by only one other author (Sellnick, 1940, p. 84; 1958, p. 23) and in both papers is attributed to Berlese, 1904. In point of fact, Sellnick misapplied the name to a different species (*Macrocheles matrius* Hull, 1925) as pointed out by Krauss (1970, p. 18). The spelling *rubustulus* has not been used since 1958.

3. The three taxa described by Berlese are currently referred to the genus *Macrocheles* Latreille, 1829, as *Macrocheles subbadius*, *M. scutatus* and *M. robustulus* (sic). The species described as *rubustulus* has also been referred to as *Macrocheles subbadius* var. *robustulus* and *M. robustulus*. The spelling *robustulus* has been used in at least 35 papers from Leitner (1946, p. 85) onwards. The modern concept of the synonymy of this species dates from Axtell (1961, p. 748). Since that time the name *robustulus* has achieved widespread international usage. The name has been used by authors from U.S.A. (e.g. Axtell, 1961, p. 748; 1963, p. 628), Italy (e.g. Filipponi & Pegazzano, 1962, p. 230; Cicolani, 1979, p. 171), Israel (Costa, 1966, p. 532), Germany (Krauss, 1970, p. 18), Mexico (Halffter & Matthews, 1971, p. 160), India (Prasad, 1974, p. 155), U.S.S.R. (Bregetova, 1977, p. 374), New Zealand (Emberson, 1980, p. 136), U.K. (Luxton, 1982, p. 577; Hyatt & Emberson, 1988, p. 106) and Australia (Wallace, 1986, p. 11).

4. The mite species in question is believed to be of health importance. It is a predator which occurs in accumulations of dung, where it contributes to the biological control of the housefly *Musca domestica* (e.g. Axtell, 1961, 1963, 1969; Filipponi, 1964). For this reason it has been the subject of a variety of ecological and laboratory studies (e.g. Axtell, 1961; Filipponi, 1964; Filipponi & Mosna, 1968; Cicolani, 1979; Halliday & Holm, 1987).

5. The type specimen of *rubustulus* (slide number 19/18) is in the Berlese Acaroteca, Florence, and is labelled *robustulus* in Berlese's handwriting. The same is true of two other slides (201/45 and 201/46) and two alcohol vials (38°/1873 and 38°/1874) (F. Pegazzano, personal communication, 1989). The name *rubustulus* was never used anywhere else in Berlese's considerable acarological canon. No material bearing this name is known to exist in his collection (Castagnoli & Pegazzano, 1985); on the other hand, a number of Berlese species names have the stem *robust-*. It appears that the spelling *rubustulus* in Berlese's 1904 paper was a typographical error. However, this spelling cannot be treated as an incorrect original spelling since the evidence for this is not to be found 'in the original publication itself, without recourse to any external source of information' (Article 32c of the Code).

6. Under a strict interpretation of Article 33c, all usage of the name *robustulus* should be regarded as incorrect subsequent spelling. However, this spelling has achieved extensive and exclusive usage since 1958 and to revert to the original spelling would cause needless confusion and would not be in the interests of stability of nomenclature.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the specific name *rubustulus* Berlese, 1904, as published in the trinomen *Holostaspis subbadius* var. *rubustulus*, is to be treated as an incorrect original spelling of the name *robustulus*;

(2) to place on the Official List of Specific Names in Zoology the name *robustulus*, as a correction of *rubustulus* Berlese, 1904, as published in the trinomen *Holostaspis subbadius* var. *rubustulus*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *rubustulus* Berlese, 1904, as published in the trinomen *Holostaspis subbadius* var. *rubustulus*, and as ruled in (1) above to be treated as an incorrect original spelling of *robustulus*.

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Case 2721

Bathynomus A. Milne Edwards, 1879 (Crustacea, Isopoda): proposed precedence over *Palaega* Woodward, 1870

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Abstract. The purpose of this application is to conserve the name of a well known genus of deep-sea isopods, *Bathynomus* A. Milne Edwards, 1879. It is threatened by the fossil genus *Palaega* Woodward, 1870, with which it is sometimes synonymized.

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1. Alphonse Milne Edwards (1879, p. 21) first recognized the genus *Bathynomus* and described the genus and its type species, *Bathynomus giganteus*, from a single immature male, which is therefore the holotype. No illustration was given until the publication of Filhol's popular account of deep-sea life (Filhol, 1885, p. 147). About nine extant species and several possible fossil species are known (see Bruce, 1986, p. 126; Hessler, 1969, p. R374; Wetzer, 1986, p. 26). Because of the large size of species in this genus (up to 46 cm body length in *B. giganteus*; Wetzer, 1986), *Bathynomus* is a widely recognized name in deep-sea biology and is often included in popular accounts of Crustacea and of deep-sea life (e.g. Schmitt, 1965; Holthuis & Mikulka, 1972; Wetzer, 1986). The genus is included as an example of the Isopoda and as an example of deep-sea crustaceans in most invertebrate text books (e.g. Barnes, 1987, p. 769). The large size has also made *Bathynomus* an ideal subject for demonstrating isopod morphology and has facilitated studies on isopod physiology. It is probably the most widely known marine isopod genus. As far as we know, *Bathynomus* is the only name that has been used for these isopods since 1879 (Richardson, 1905, p. 130; Holthuis & Mikulka, 1972, p. 575).

2. The genus *Palaega* was established by Woodward (1870, p. 496), based on four specimens of the posterior part of a Cretaceous isopod for which he established the species *P. carteri* (p. 496). Because the posterior part of isopods is similar in a great variety of genera and families, many fossil isopods have subsequently been placed in the genus *Palaega* (see Hessler, 1969, p. R380; Wieder & Feldmann, 1989). *Palaega* is of doubtful validity (Hessler, 1969, p. R380) and is acknowledged by paleontologists to be 'a form genus including individuals from several flabelliferan families distinguished from one another by parts rarely seen in fossil specimens such as the mouthparts' (Wieder & Feldmann, 1989, p. 78).

3. Imaizumi (1953) placed fossil fragments of a pleon from the Miocene of Japan in *Bathynomus* and suggested that Woodward's specimens should be placed in *Bathynomus* rather than *Palaega*. Recent finds of well preserved fossils described as *Palaega* (*P. goedertorum* Wieder & Feldmann, 1989) suggest that at least some fossils currently placed in *Palaega* and the extant genus *Bathynomus* might be equivalent, although the principal distinguishing characters needed for precise generic placement are not visible in the fossils. For example, even on the best preserved fossils, no ventral morphology

can be discerned, and mouthpart and pleopod morphology is unknown. Despite this and the statement quoted in para. 2 above, Wieder & Feldmann (1989, pp. 73, 75) treated *Palaega* as the senior synonym of *Bathynomus*. We consider that this synonymy is unwarranted on morphological grounds and is unlikely to be followed by other workers.

4. Because *Bathynomus* is a well known and clearly defined genus, whereas *Palaega* is a vague taxon based on incomplete fossils, we consider that it would be in the interests of maintaining stability of usage and avoiding confusion for the name *Bathynomus* to be given precedence over *Palaega* whenever these two genera are considered synonyms.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to give precedence to the name *Bathynomus* A. Milne Edwards, 1879 over the name *Palaega* Woodward, 1870 whenever the two are considered to be synonyms;

(2) to place on the Official List of Generic Names in Zoology the following names:

  (a) *Bathynomus* A. Milne Edwards, 1879 (gender: masculine), type species by monotypy *Bathynomus giganteus* A. Milne Edwards, 1879, with the endorsement that it is to be given precedence over *Palaega* Woodward, 1870 whenever the two names are considered to be synonyms;

  (b) *Palaega* Woodward, 1870 (gender: feminine), type species by monotypy *Palaega carteri* Woodward, 1870, with the endorsement that it is not to be given priority over the name *Bathynomus* A. Milne Edwards, 1879 whenever the two names are considered to be synonyms;

(3) to place on the Official List of Specific Names in Zoology the following names:

  (a) *giganteus* A. Milne Edwards, 1879, as published in the binomen *Bathynomus giganteus* (specific name of the type species of *Bathynomus* A. Milne Edwards, 1879);

  (b) *carteri* Woodward, 1870, as published in the binomen *Palaega carteri* (specific name of the type species of *Palaega* Woodward, 1870).

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Case 2700

Carcinochelis Fieber, 1861 (Insecta, Heteroptera): proposed designation of *Carcinochelis alutaceus* Handlirsch, 1897 as the type species

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Abstract. The purpose of this application is to conserve the established meaning of the ambush bug genus *Carcinochelis* Fieber, 1861 by the designation of *C. alutaceus* Handlirsch, 1897 as the type species. The first included nominal species was *C. binghami* Sharp, 1897, but acceptance of this as the type species would make *Carcinochelis* a senior subjective synonym of *Carcinocoris* Handlirsch, 1897, and would upset the usage of both generic names.

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1. Fieber (1861, p. 34) erected the new genus *Carcinochelis* in a key without included species. Walker (1873, p. 170) included *Carcinochelis* in a modified version of Fieber's key, and also assigned no species to it. Lethierry & Severin (1896, p. 29) included under this genus '*alutaceus* Fieber (non descriptus) — Patria ignota', a nomen nudum.

2. Sharp (1897, pp. 35–36) discussed *Carcinochelis* and assigned his new species *binghami* to it — thus making *binghami* the type species by virtue of its being the first included nominal species.

3. In the same year Handlirsch (1897a, pp. 23–26) also recognized Fieber's *Carcinochelis*, discussed it without included species, and described the related genus *Carcinocoris* with his own two new species *castetsi* and *erinaceus*. Later that year Handlirsch (1897b) conceded that Sharp's publication had preceded his earlier one by making his own species *erinaceus* a junior synonym of Sharp's *binghami* when he transferred the latter to *Carcinocoris*. Distant (1903, p. 151) designated *C. castetsi* as the type species of *Carcinocoris*.

4. Handlirsch (1897b, p. 222) described as the only nominal species included under *Carcinochelis* his *Carcinochelis alutaceus*, based on Fieber's specimen bearing that unpublished name. For over 90 years subsequent authors have followed Handlirsch's actions. Authors who have used *Carcinochelis* in the sense of *alutaceus* include Distant (1909), Bergroth (1917) and Hsiao & Liu (1979).

5. As pointed out by Maa & Lin (1956, p. 146) — who also followed Handlirsch — acceptance of Sharp's 1897 fixation of *binghami* as the type species of *Carcinochelis* would make this name a senior subjective synonym of the widely used genus *Carcinocoris*, and would require proposal of a new generic name for *alutaceus* and its allies. This action would interrupt 90-plus years of uniform treatment.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Carcinochelis* Fieber, 1861, and to designate *Carcinochelis alutaceus* Handlirsch, 1897 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Carcinochelis* Fieber, 1861 (gender: masculine), type species by designation in (1) above *Carcinochelis alutaceus* Handlirsch, 1897;

(3) to place on the Official List of Specific Names in Zoology the name *alutaceus* Handlirsch, 1897, as published in the binomen *Carcinochelis alutaceus* (specific name of the type species of *Carcinochelis* Fieber, 1861).

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Case 2717

Steno attenuatus Gray, 1846 (currently *Stenella attenuata*; Mammalia, Cetacea): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the specific name of the pantropical spotted dolphin, *Stenella attenuata* (Gray, 1846), the type species of *Stenella* Gray, 1866. The specific name is threatened by three subjective synonyms, only one of which has been mentioned (as a probable synonym) during this century.

1. The currently used specific name of the pantropical spotted dolphin, *Stenella attenuata* (Gray, 1846), has a number of subjective synonyms. These include *Delphinus velox* G. Cuvier, 1829, *D. pseudodelphis* Schlegel, 1841, *D. brevimanus* Wagner, 1846, and *Steno capensis* Gray, 1865. It is not known which of the two names *attenuatus* Gray, 1846 or *brevimanus* Wagner, 1846 has priority.

2. The name *Delphinus velox* was proposed for a new species of dolphin by G. Cuvier in 1829. It was used by Fischer (1830, p. 455), F. Cuvier (1836, p. 154), Rapp (1837, p. 30), and was mentioned by Gray (1850, p. 132, where it appeared as a 'species requiring further examination') and Pucheran (1856, pp. 453–456). Trouessart (1898, p. 1035) placed it tentatively as a synonym of *D. malayanus* Lesson in Lesson & Garnot, 1826 (p. 184, pl. 9, fig. 5), considered by Perrin et al. (1987, p. 111) to be a nomen nudum (but more properly a nomen dubium). Ellerman & Morrison-Scott (1951, p. 732) repeated Trouessart's synonymy. Hershkovitz (1966, p. 32) placed *D. velox* as a synonym of *D. dubius* G. Cuvier, 1812 (p. 14; also considered to be a nomen nudum by Perrin et al. (1987, p. 111), but, again, more properly a nomen dubium). Perrin et al. (1987, p. 112) identified the holotype specimen of *D. velox* (a mounted skin in the Muséum National d'Histoire naturelle in Paris, No. 17 of the *Catalogue de la Galerie de Zoologie*) as a pantropical spotted dolphin, *Stenella attenuata*. The specific name *velox* G. Cuvier, 1829 is therefore a senior subjective synonym of *attenuatus* Gray, 1846, but the former has not been applied to spotted dolphins during this century.

3. The name *Delphinus pseudodelphis* was used by Wagner (1846, p. 332) in his revision of Schreber's *Säugethiere*. Wagner ascribed the name to Wiegmann and stated that it was based on the plate (pl. 358) of three views of a skull, which he was now publishing, and that Wiegmann had not provided a description. Volume 7 of the work, in which the name appeared, was begun by Wiegmann, continued by Stannius, and finished by Wagner (Wagner, 1846, p. iv) and was finally published in 1846 (see also Sherborn, 1891, p. 591). Wiegmann's plates, however, were ready several years earlier, and Schlegel (1841, p. 22) referred to '*Delphinus pseudodelphis*, Wiegman [sic] im Schreber, Säugth. Tab. 358'. Schlegel compared the skull with that of other species and considered that it was closest to *D. malayanus*. He ascribed a skull in the collections of

the Leiden museum to the species. Wagner (1846, p. 332) further described the skull and cited Schlegel's paragraph. Schlegel's 1841 work makes the name *pseudodelphis* available and it should therefore be attributed to him, although hitherto authors have ascribed authorship to Wiegmann '1840 or earlier' (Hershkovitz, 1966, p. 32), or Wiegmann in Schreber (1846). Gray (1850, p. 130), True (1889, pp. 67, 69) and Beddard (1900, p. 260) considered it to be a synonym of *attenuatus*, while Trouessart (1898, p. 1035) thought it was a synonym of *malayanus*. Later, True (1894, pp. 36–37) considered *pseudodelphis* to be a nomen nudum. Oliver (1922, p. 583) stated that 'probably it should be united with *S [tenella] malayanus* Lesson (1826) and *S. fraenatus* F. Cuvier (1836)' (actually *D. froenatus* G. Cuvier, 1829, regarded by Perrin et al. (1987, p. 112) as a junior synonym of *Delphinus* (now *Stenella*) *frontalis* G. Cuvier, 1829). Hershkovitz (1966, p. 32) placed the species in the synonymy of *dubius* G. Cuvier, 1812. Perrin et al. (1987, p. 113) identified the skull in the original illustration published by Wagner as that of a pantropical spotted dolphin, the name *pseudodelphis* therefore being a senior subjective synonym of *attenuatus* Gray, 1846. They recommended that as *pseudodelphis* had been discussed only once in this century (by Oliver, 1922, p. 583, in a qualified way, as mentioned above) it should not be resurrected.

4. The name *Delphinus brevimanus* was used by Wagner in 1846 in the caption to a colored plate of a dolphin (pl. 361, fig. 2) and in the index of plates (p. 427). A plate of a dolphin (pl. 21, fig. 2), together with views of a skull (pl. 23, figs. 7 and 8), both labeled 'Dauphin à Petites Pectorales', appeared in the zoological part of the *Atlas* of the *Voyage au Pôle Sud, Astrolabe et la Zélée* (Hombron & Jacquinot, 1842–1853). Subsequently, the text of the zoological part was published (1853) and the species was referred to (p. 38) as 'Dauphin à Petites Pectorales Hombron & Jacquinot, pl. 21, fig. 2; *Delphinus brevimanus* Wagner, Schreb. Säug., pl. 361, fig. 2'. The skull figured by Hombron & Jacquinot is No. 1882–113 in the Muséum National d'Histoire naturelle in Paris. Gray based his species *Delphinus? microbachium* (1850, p. 119) on this skull and referred to Hombron & Jacquinot's plates; he subsequently included the species as *Steno? brevimanus* in his 1866 *Catalogue of Seals and Whales* (p. 236; reference 1866a) but not in his 1868 *Synopsis*. *D. brevimanus* was also included by Gervais (1877, p. 605). True (1889, p. 67) placed it in the synonymy of *malayanus*, as also did Trouessart (1898, p. 1035). It was not recognized by Beddard (1900). Hershkovitz (1966, p. 33) thought it a synonym of *dubius*, while Perrin et al. (1987, p. 114) placed it in the synonymy of *attenuatus*. The name *brevimanus* has not been used as a senior synonym during this century.

5. The specific name *attenuatus* was first used by Gray in 1843 (p. 105) in combination with *Delphinus* but without description or figure and it was, therefore, a nomen nudum. Gray subsequently (1846, p. 44, pl. 28), based *attenuatus* on a juvenile skull of unknown provenance, No. 347b, in the British Museum (Natural History) and included it in his new genus *Steno* (1846, p. 43). The specific name *attenuatus* has been widely used for the pantropical spotted dolphin for many years. After its application by True to spotted dolphins from the Atlantic (1889, p. 165), the Indian Ocean (1894) and the Pacific (1903, p. 43), it was used by Fraser (1950), Hohn & Hammond (1985), Honacki et al. (1982, p. 296), the International Whaling Commission (1977–1988), Jones et al. (1986, p. 17), Leatherwood et al. (1983, p. 230), Miyazaki et al. (1974), Nishiwaki (1967, pp. 5, 36), Nishiwaki et al. (1965), Nowak & Paradiso (1983, p. 877 and others), Perrin (1975a, pp. 125, 128; 1975b, pp. 1061–1063; 1984, pp. 137, 138;

1988), Perrin et al. (1976; 1979; 1985, pp. 4, 21, 23), Rice (1977, pp. 8, 13) and others. Substitution of any of the synonyms *velox*, *pseudodelphis* or *brevimanus* for *attenuatus* would upset long-standing nomenclatural stability for this well-known pantropical species and cause considerable confusion in the zoological literature, in legal and institutional documentation, and in the legislative language relating to conservation and management of the species.

6. The name *Delphinus capensis* Gray, 1828 (p. 2) was based on a dolphin skin from the Cape of Good Hope in the British Museum (Natural History). Subsequently, Gray (1865, p. 522) proposed the name *Steno capensis* for a dolphin skull in the South African Museum, Cape Town which was later presented to the British Museum (Natural History). The two specific names *capensis* were proposed for species included in different genera (*Delphinus* Linnaeus, 1758 and *Steno* Gray, 1846) and are still regarded as distinct today. *Delphinus capensis* Gray, 1828 is presently treated as a junior synonym of *Delphinus delphis* Linnaeus, 1758 (Hershkovitz, 1966, p. 43). True (1889, p. 62), Hershkovitz (1966, p. 33) and Perrin (1987, p. 150) listed *S. capensis* Gray, 1865 as a junior subjective synonym of *attenuatus*. There is thus no doubt that *Delphinus capensis* Gray, 1828 is not a senior subjective synonym or secondary homonym of *Steno capensis* Gray, 1865.

7. The name *Prodelphinus* was proposed by Gervais (in Van Beneden & Gervais, 1880, p. 604) for a genus distinct from *Delphinus* by the absence of deep palatine lateral grooves. True (1889, pp. 61–62) included 23 species in the genus, including *attenuatus*. Subsequently, Oliver (1922, p. 582) adopted *Stenella*, a name proposed by Gray (1866b, p. 213) for the single species *Steno attenuatus*, as a name senior to *Prodelphinus*. *Stenella* was poorly defined and was not listed by Simpson (1945) but under Article 12(b)(5) of the Code is an available name. Following its use by Iredale & Troughton (1934, p. 65), Fraser (1950), Fraser & Purves (1960), and others it has been universally accepted (see, for example, Corbet & Hill (1986, p. 123)). *Steno* Gray, 1846 is now confined to a single species, *Steno bredanensis* Lesson, 1828 (a replacement name for *Delphinus rostratus* Desmarest, 1817 which was preoccupied), the rough-toothed dolphin with a wide distribution in tropical and warm temperate seas (Hershkovitz, 1966, p. 15).

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the following specific names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
  (a) *velox* G. Cuvier, 1829, as published in the binomen *Delphinus velox*;
  (b) *pseudodelphis* Schlegel, 1841, as published in the binomen *Delphinus pseudodelphis*;
  (c) *brevimanus* Wagner, 1846, as published in the binomen *Delphinus brevimanus*;

(2) to place on the Official List of Generic Names in Zoology the name *Stenella* Gray, 1866 (gender: feminine), type species by monotypy *Steno attenuatus* Gray, 1846;

(3) to place on the Official List of Specific Names in Zoology the name *attenuatus* Gray, 1846, as published in the binomen *Steno attenuatus* (specific name of the type species of *Stenella* Gray, 1866);

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
  (a) *velox* G. Cuvier, 1829, as published in the binomen *Delphinus velox* and as suppressed in (1)(a) above;
  (b) *pseudodelphis* Schlegel, 1841, as published in the binomen *Delphinus pseudodelphis* and as suppressed in (1)(b) above;
  (c) *brevimanus* Wagner, 1846, as published in the binomen *Delphinus brevimanus* and as suppressed in (1)(c) above.

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Case 2726

Mammuthus Brookes, 1828 (Mammalia, Proboscidea): proposed conservation, and *Elephas primigenius* Blumenbach, 1799 (currently *Mammuthus primigenius*): proposed designation as the type species of *Mammuthus*, and designation of a neotype

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Abstract. The purpose of this application is to conserve the generic name *Mammuthus* Brookes, 1828, and to designate *Elephas primigenius* Blumenbach, 1799 as the type species, in accordance with existing usage. *M. primigenius*, the woolly mammoth, is known from Pleistocene deposits in Europe, Asia and northern North America. A neotype for *primigenius* is designated.

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1. Two specific names for the woolly mammoth were proposed in 1799: Blumenbach (p. 697) proposed the name *Elephas primigenius*, while G. Cuvier (p. 21) proposed *E. mammonteus*. Blumenbach's work appeared a few months earlier and *primigenius* was the name adopted by subsequent authors. Maglio (1973, p. 60) in his revisionary work on the ELEPHANTIDAE suggested that Blumenbach did not validly publish the specific name in 1799 (presumably because *primigenius* was written with an interrogation mark) and that the name became available from the 1803 French translation of Blumenbach's work (p. 407, where the name was cited without the interrogation mark). Kurtén & Anderson (1980, p. 353) and earlier authors (Falconer, 1868, p. 158; Lydekker, 1886, p. 175; Trouessart, 1897, p. 711; Hay, 1902, p. 713) have also cited *primigenius* with the date 1803. If this date for *primigenius* were [incorrectly] adopted Cuvier's name *E. mammonteus* would have priority. However, all subsequent authors, including Cuvier himself (1806, p. 264), have accepted Blumenbach's name *primigenius* as the valid name for the species.

2. Blumenbach did not list any specimens on which the name was established and which could have been used to designate a lectotype. He stated that bones were often

found in Germany and referred to a skeleton found near Burgtonna in 1695 as an example of his new species. This specimen was later recognised (Osborn, 1942, pp. 1118, 1122; Maglio, 1973, p. 40) to be of the straight-tusked elephant, *Elephas antiquus* Falconer & Cautley, 1845. The Burgtonna skeleton is not to be regarded as a holotype since *E. primigenius* was not based on it alone and was composite according to modern taxonomy.

3. The collection in the Zoological Institute of Göttingen University included teeth of the woolly mammoth from Blumenbach's personal collection which he might have used in establishing the name *E. primigenius*, and in 1942, acting on advice from W. O. Dietrich, Osborn (p. 1122) selected from among them two teeth as 'lectotypes'. These were an incomplete last lower molar from Siberia and a last upper milk premolar from Osterode (Harz) in Germany. In 1965, Gromova (p. 38) proposed that one of the teeth, that from Siberia, should be the lectotype.

4. We turn now to the question of the generic name. Blumenbach included the generic name *Mammut* in his work (1799, p. 698), with the specific name *ohioticum*, but this refers to the North American mastodon (Simpson, 1945, pp. 133, 247). The earliest use of the generic name *Mammuthus* appears to have been that by Brookes in a sales catalogue (1828, pp. 73, 74) which has been approved as available for zoological nomenclature by the Commission (Opinion 1080, July 1977), followed by Burnett (1830, p. 352). Neither author gave a diagnosis or description of the genus. They both included two species and used very nearly the same words: 'Genus *Mammuthus*, species *borealis*, *meridionalis*. Fossil mammoth'. In both works the name *borealis* was cited without authorship or description but Brookes attributed the second species, *meridionalis*, to '(Nesti)' and *Elephas meridionalis* Nesti, 1825 (p. 211) was thereby fixed as the type species of *Mammuthus* by monotypy; its citation makes *Mammuthus* available (Article 12b(5) of the Code). Pohlig (1888, p. 138) later designated *Elephas meridionalis* the type species of his new genus *Archidiskodon*. (The nominal taxon *meridionalis* was subsequently recognised as composite, one of the three syntype skulls described by Nesti (1825, p. 213, skull 'B', cat. no. Igf 1067 in the Florence University Museum) being *E. antiquus* (Weithofer, 1890, p. 137). Depéret & Mayet (1923, pp. 126, 128, figs. 16a, 16b) selected Nesti's skull 'C' (1825, p. 213, pl. 1, figs. 1 and 2, no. Igf 1054) as the lectotype of *meridionalis*; see Azzaroli, 1977, p. 156 for details). *Archidiskodon* is a junior objective synonym of *Mammuthus* Brookes, 1828; it was treated as a distinct genus by Osborn (1942, pp. 935, 947) and Azzaroli (1977, p. 151) but was synonymised with *Mammuthus* by Aguirre (1968–69), Maglio (1973, p. 51), and Coppens et al. in Maglio & Cooke (1978, p. 357).

5. In 1935 Hopwood (p. 11) adopted the name *Mammuthus* 'because it appears to be the first genus to have *Elephas primigenius* specified as the type species'. As noted above, *primigenius* had not been mentioned in *Mammuthus*, but Hopwood (p. 98) accepted the synonymy '1799 *Elephas primigenius* Blumenbach; 1830 *Mammuthus borealis* Burnett' and wrote that 'by so doing I have attempted to make the Rules [Code] a useful servant, rather than to allow them to become a blind, unreasoning, master'. Hopwood was supported by Colbert (1937, in litt. to Osborn (1942, p. 1367)). Because of uncertainty about the availability of the name *Mammuthus*, Osborn (1924, p. 2; 1942, pp. 1117, 1126) adopted *Mammonteus* Camper, 1788 but, as Simpson (1945, p. 249) pointed out, '*Mammonteus* was reconstructed by Osborn from 'Mammonteum' in a Latin work by Camper, but it is perfectly clear that Camper used this only in the

vernacular and neither intended nor inadvertently created a real generic name. It is also doubtful whether Camper's 'mammonteum' would be available for a mammoth (and not mastodon) even if it were a generic name'. *Mammonteus* was regarded as only doubtfully available by Osborn himself (1924, p. 2; 1942, p. 1177), and Mabel Rice Percy, editing material for the 1942 volume after Osborn's death, wrote (p. 1363) 'it is possible that Professor Osborn would have abandoned it in the final version of the present volume and adopted *Mammuthus* Burnett, 1830'.

6. After Hopwood, Scott (1937, pp. 67, 274–276, 278) adopted the generic name *Mammuthus* and other workers followed, usually attributing the name to Burnett (1830) although Brookes (1828) is the earlier author. The name *Mammuthus* was adopted by the following, among others: Simpson, 1945, p. 134; Carrington, 1962, pp. 129–131; Maglio, 1973, p. 50; Coppens et al. in Maglio & Cooke, 1978, pp. 357, 358; Kurtén & Anderson, 1980, pp. 353–354; Dubrovo, 1982; Stuart, 1982, pp. 44–48; Beden, 1985, pp. 28–31; Foronova in Kahlke, 1986, pp. 35, 36, 38; and Tassy & Shoshani in Benton, 1988, pp. 292, 293, 295. When the type species is mentioned the name *Elephas primigenius* is that which is cited (Osborn, 1942, p. 1141; Maglio, 1973, p. 50; Azzaroli, 1977, p. 151; Coppens et al. in Maglio & Cooke, 1978, p. 357). It is desirable to maintain stability in the nomenclature of this important and interesting species and the Commission is therefore asked to ratify existing usage, and to interpret the specific name *primigenius* by the skeleton designated as the neotype (see para. 8 below). In so doing the generic name *Archidiskodon* Pohlig, 1888, with the type species *Elephas meridionalis* Nesti, 1825, will also be conserved; the name has had recent usage (Stuart, 1982, pp. 44–48; Foronova in Kahlke, 1986, pp. 29–42). The genus *Mammuthus* now includes between seven and ten species, according to different authors, including *primigenius* (Maglio, 1973; Madden, 1981).

7. Since the Second World War Blumenbach's original specimens of *E. primigenius* have disappeared and are probably destroyed (Prof Dr H. D. Kahlke, pers. comm.; see also Comment on p. 51). Osborn (1942, p. 1123) stated that casts of the two teeth designated as 'lectotypes' by him (see para. 3 above) were in the American Museum of Natural History (the lower molar from Siberia, AMNH no. 26980 and fourth upper deciduous premolar, no. 26981) and figured the casts (p. 1123, fig. 993). However, neither specimen would be useful for study purposes since the molar which was cast was incomplete and had an eroded occlusal surface, while the premolar was hardly worn and shows little of the occlusal pattern. There are no duplicate casts in the collections of the Natural History Museum, London (Alan Gentry, pers. comm.). It is not known what became of the specimens of '*Mammuthus borealis*' from the Brookesean Museum after the sale of the collections in 1828; 13 specimens of parts of tusk, teeth, limb bones and fur were listed in the sales catalogue (1828, pp. 73 and 74) but it is likely that they have all been destroyed. A copy of the prospectus of the Brookesean Museum (Brookes, 1827), given by Brookes to J. E. Gray, carries a note by Gray: 'This collection was offered to the British Museum Feb. 1827 for 10.00£ subject to the reference of two competent persons relation to its value. J. E. Gray'. There is no record of purchase of mammoth specimens by the Natural History Museum, London, from Brookes's collection (Lydekker, 1886; Woodward, 1904). However, a catalogue of specimens in the collections of the Royal College of Surgeons (1844, p. 466) contains the entry '*Elephas primigenius*. 2374. Portion of a tusk. O.C.F. 631. Locality unrecorded. Brookes's collection. Purchased, 1828' and records (p. xv): 'Brookes collection. The

greater part was sold by auction in 1828, on the 14th of July and the twenty-four following days, when the College was a purchaser to the amount of £800. A few specimens were also bought at a subsequent sale of the remaining portion of the collection in 1830'. Most of the collections of the Royal College of Surgeons were destroyed during the Second World War. Subsequently, the remaining natural history material was donated to the British Museum (Natural History) (entry no. 6738, for 17th October 1946, in the palaeontology accessions list) but there is no mention of mammoth remains.

8. The problem of a meaningful type specimen for *Elephas primigenius* has remained unresolved until now but it is necessary that the species be typified clearly. During the past few decades scientists have many times attempted to clarify the species' intraspecific variation; these attempts have been made more difficult, however, as *E. primigenius* and its nominal subspecies have never been unambiguously defined. We propose to designate as the neotype the adult male skeleton discovered in 1948 in permafrost on the Taimir Peninsula, northern Siberia (Garutt, 1982, 1989). The specimen is exhibited in the museum of the Zoological Institute of the U.S.S.R. Academy of Sciences in Leningrad (cat. no. ZIN N 2710). The skeleton was found with remains of soft tissues, skin and hair in deposits of the second terrace above the flood plain of the Mamontovaya River, a tributary of the Shrenk in the basin of the Nizhnyaya Taimira River (Popov, 1950, 1959). Radiocarbon dating of the soft tissues (sample T-297) gave ages of 12 000 (Vinogradov, 1954) and 11 450 ± 250 yr BP (Heintz & Garutt, 1965, p. 76). The Taimir specimen, which is in an excellent state of preservation and is exceptionally complete, lacking only a few caudal vertebrae and third phalanges, has been described by Garutt & Dubinin (1951), Garutt (1954, 1964, 1965, 1972 and 1981), Dubrovo (1982), and Baigusheva & Garutt (1987). The last molars are in mid-wear and the tusks are well developed. Remains of plants from the same layers as the skeleton have been studied by Tikhomirov (1950, 1959), Zaklinskaya (1959) and Zhuze (1959). A description of the recovery of the specimen and a plate showing the mounted skeleton in the Zoological Institute in Leningrad are included in Augusta & Burian (1963, pp. 24–26, 34).

9. Both the stratigraphic position and the absolute age show that the Taimir mammoth existed towards the very end of the Late Pleistocene, during the last part of the Sartanian glaciation. The skeleton is of the late, advanced form of *M. primigenius* which inhabited Eurasia from the Last Interglacial to the end of the Last Cold Stage. This form is that which occurs most commonly as fossil material and is therefore considered by most specialists as the typical one (Garutt, 1964, and others).

10. The International Commission on Zoological Nomenclature is asked:

(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Mammuthus* Brookes, 1828, and to designate *Elephas primigenius* Blumenbach, 1799 as the type species;

(2) to place on the Official List of Generic Names in Zoology the name *Mammuthus* Brookes, 1828 (gender: masculine), type species by designation in (1) above *Elephas primigenius* Blumenbach, 1799;

(3) to place on the Official List of Specific Names in Zoology the name *primigenius* Blumenbach, 1799, as published in the binomen *Elephas primigenius* (specific name of the type species of *Mammuthus* Brookes, 1828), and as defined by the neotype designated in para. 8 above.

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Note on *Borelis* de Montfort, 1808 (Foraminiferida) and the neotype of its type species

(Case 2225/6: see BZN **45**: 116–117, 217–219)

P. K. Tubbs
Executive Secretary, International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

In a comment on this case (BZN **45**: 217–219) Dr F. T. Banner pointed out that a neotype of *Nautilus melo* Fichtel & Moll, 1798 had been validly designated by Smout (1963, pp. 265–266). This neotype is a specimen corresponding to *N. melo* "var. β" of Fichtel & Moll, which de Montfort (1808) named as *Borelis melonoides*, the only species he included in *Borelis*. This neotype defines *Borelis* and *B. melo*, the valid synonym of the type species, and is in accord with established usage (see Loeblich & Tappan, 1988, p. 362). Drs H. J. Hansen and F. Rögl, the authors of the case, have accepted this and have stated that *N. melo* "var. α" Fichtel & Moll (i.e. *Clausulus indicator* de Montfort, 1808) and *Alveolina haueri* d'Orbigny, 1846 should be considered conspecific with *Borelis melo*. This case therefore requires no action and is closed.

Comments on the proposed fixation of type species for *Larnaudia* and *Ranguna* Bott, 1966 (Crustacea, Decapoda)

(Case 2624; see BZN **46**: 101–103)

(1) Peter K. L. Ng
Department of Zoology, National University of Singapore, Kent Ridge, Singapore 0511

Türkay & Naiyanetr have demonstrated that the type species designations for *Ranguna* and *Larnaudia* by Bott (1966) were based on incorrectly identified material. Their application to fix the type species for these two genera in a group whose taxonomy is particularly 'volatile' is welcomed. There is, however, no strong reason to recommend that the nominal type species be changed for either genus.

I fully agree with the retention of *Thelphusa larnaudii* A. Milne Edwards, 1869 as the type species of *Larnaudia* Bott, 1966. *Larnaudia* was originally established as a subgenus of *Potamiscus* Alcock, 1909, but was later raised to a full genus (Bott, 1970) with two species, the type and *L. browneana* (Kemp, 1918). One more species from Thailand, *Larnaudia chaiyaphumi* Naiyanetr, 1982, was later added. Türkay & Naiyanetr (1987) redefined the genus after showing that Bott's type species had been based on misidentified material, and transferred *Tiwaripotamon beausekomae* Bott, 1970 to *Larnaudia*. They noted that *L. browneana* was closely related to *Ranguna brousmichei* (Rathbun, 1904), and transferred *L. browneana* to *Ranguna*. Other than these publications and several by Naiyanetr pertaining to the identification, ecology and general biology of Thai crabs, there has not been wide usage of *Larnaudia*.

The problem with *Ranguna* Bott, 1966 is more complex because of the larger number of species that have been assigned to it. Bott (1970) established *Ranguna* with *Potamon (Potamon) rangoonensis* Rathbun, 1904 as type species, although he did not examine the type specimens. He recognised two subgenera, *Ranguna* and *Demanietta* Bott, 1966, both of which were distinguished by the form of their male first pleopods. In the nominate subgenus, Bott (1970) recognised 17 species and subspecies. He noted that three other taxa could also possibly be included in *Ranguna (Ranguna)*. More species from Thailand have since been described by Naiyanetr. Ng (1988), however, transferred two of the Malayan species to a redefined *Stoliczia* Bott, 1966. I have also pointed out (Ng, 1985, 1987, 1988) that the character used by Bott (1966, 1970) to characterise the genus (presence of a dorsal fold on the terminal segment of the male first pleopod) is not always reliable. My present studies also indicate that the genus *Ranguna* as defined by Bott (1970) is probably heterogeneous, and that several of the species should be classified in other genera. The name *Ranguna* has only been used by a restricted circle of carcinologists, and, other than some local studies on crabs and *Paragonimus* in Thailand, the name has not been used widely.

Another point that must be considered is that if the type species for *Ranguna* is changed, it might lead to unnecessary confusion, especially if future studies show that *Ranguna* is not found in the vicinity of Rangoon or even Burma (the present Myanmar). In establishing *Ranguna*, Bott (1966) clearly wanted the name to match his chosen type species. Additional confusion might also arise as there will then be a species called *Potamiscus rangoonensis* (Rathbun, 1904) as well as a genus *Ranguna*, which by the application of Türkay & Naiyanetr would specifically exclude that species.

I would thus prefer that the type species of *Ranguna* remain as *Potamon rangoonense*. As Türkay & Naiyanetr (1987) have already noted after their re-examination of the type specimen of *Potamon rangoonense*, this would make *Ranguna* Bott, 1966 a junior subjective synonym of *Potamiscus* Alcock, 1909. There are no serious problems with this. The applicants' choice of *Thelphusa longipes* A. Milne Edwards, 1869 as a replacement type species is based mainly on the form of that species' male first pleopod, which fits Bott's diagnosis (Bott & Türkay, 1977). Other than this character, the other features of *T. longipes* agree with those of *Potamiscus* quite well. There is thus the possibility that a future revision will require the transfer of *T. longipes* to *Potamiscus*. To designate *T. longipes* as the type species in place of *Potamon rangoonense* might thus be a futile exercise.

Additional references

Ng, P. K. L. 1985. Freshwater decapod crustaceans from Pulau Tioman, West Malaysia. *Zoologische Mededelingen*, **59**(14): 149–162.

Ng, P. K. L. 1987. A revision of the Malayan freshwater crabs of the genus *Johora* Bott, 1966 stat. nov. (Decapoda: Brachyura: Potamidae). *Malayan Nature Journal*, **41**: 13–44.

Ng, P. K. L. 1988. *The Freshwater Crabs of Peninsular Malaysia and Singapore*. viii, 156 pp. National University of Singapore, Shinglee Press, Singapore.

(2) L. B. Holthuis

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Larnaudia Bott, 1966

I agree with the applicants that this is a case of a genus based on a misidentified type species. Notwithstanding the fact that Bott (1970, pp. 176, 302, pl. 50, fig. 46) positively declared that he had examined, measured and figured the lectotype of the species, he actually did not have access to it. The solution proposed by Türkay & Naiyanetr, namely to accept the nominal species *Thelphusa larnaudii* A. Milne Edwards, 1869 as the type of *Larnaudia*, is altogether sensible and it is the simplest way out of the mess. I gladly support their application on this point.

Ranguna Bott, 1966

Ranguna Bott, as shown by Türkay & Naiyanetr, is likewise based on a misidentified type specimen. Bott (1966, p. 481; 1970, pp. 163–164) made clear that he had not seen the type material of *Potamon rangoonense* Rathbun, 1904, the species that he designated as the type of the genus. Now Türkay & Naiyanetr, after examination of the holotype of Rathbun's species, find that it is not a *Ranguna* in Bott's sense, but a species of *Potamiscus*. *Ranguna* thus falls as a junior synonym of *Potamiscus*, unless the Commission under its plenary powers changes its type species. *Ranguna* (sensu Bott) is not a well known genus and is not important in applied science, commerce or popular science, so the loss of the name will not cause undesirable confusion. Furthermore, the status of the many species assigned to *Ranguna* by Bott is uncertain. Recently, Ng (1988), in a handbook on Malaysian freshwater crabs, removed two species placed in *Ranguna* by Bott to the genus *Stoliczia* Bott, 1966. The area from which Bott reported *Ranguna* (Burma, Thailand, Vietnam, Cambodia) is very poorly known as far as the freshwater fauna is concerned; only recently Türkay & Naiyanetr undertook a systematic survey of the freshwater crabs of Thailand, a job, judging by the many new species still turning up, that is far from finished. Recent researches by Ng on the freshwater crabs of the Malay Peninsula and the Greater Sunda Islands also show that the last word on the taxonomy of the group has not been spoken, and that Bott's classification, although his book is very useful, certainly does not provide a definitive solution. This is not surprising at all in the light of the fact that Bott's masterly treatise was based on the rather meagre material that at that time was available in most museums of the world.

The proposal to make *Thelphusa longipes* A. Milne Edwards, 1869 (from Pulau Condore in the South China Sea) the type species of *Ranguna* carries with it the danger that the genus *Ranguna* will not be found in the area of Rangoon, while also the almost tautonymously named species *P. rangoonense* is not included in it. In my opinion it is much more sensible to leave the genus *Ranguna* with *Potamon rangoonense* as the type species, and let it lapse (for the time being?) as a subjective synonym of *Potamiscus*. The proposal of a new and uncompromised generic name for *Thelphusa longipes* and related species seems the most logical way out.

I would most strongly advise treating *Ranguna* in a similar way to that proposed for *Larnaudia*: let the nominal species selected by Bott be the type species for the genus.

Comments on the proposed designation of *Lecanium coffeae* Walker, 1852 as the type species of *Saissetia* Déplanche, 1859 (Insecta, Homoptera)

(Case 2677; see BZN **46**: 114–118)

(1) Giovanni De Lotto
Via E. Fermi 13, 89048 Siderno (R.C.), Italy (formerly *Plant Protection Research Institute, Pretoria, South Africa*)

After carefully reading the application made by Dr Y. Ben-Dov on the status of the genus *Saissetia* Déplanche, 1859 and the confusion made by later authors on the identity of its type species, I fully agree with his views and conclusions. Therefore I endorse his application to designate *Lecanium coffeae* Walker, 1852 as the type species of *Saissetia*.

(2) Chris Hodgson
Department of Biochemistry and Biological Sciences, Wye College, University of London, Wye, Ashford, Kent TN25 5AH, U.K.

In this application, Dr Y. Ben-Dov proposes that *Lecanium coffeae* Walker be designated the type species for the genus *Saissetia* Déplanche, and asks that the name *Saissetia coffeae* Déplanche be suppressed.

I would like to support his application. This genus is of world-wide economic importance and so it is imperative that the status of these two species names should be stabilised. I consider that his proposal does this with the least disturbance to modern usage and to the current understanding of the genus *Saissetia*.

The evidence seems extremely strong that the *Saissetia coffeae* of Déplanche was a mealybug. As there is no way of knowing which mealybug Déplanche was studying in 1859, there is no species to which the name *Saissetia coffeae* Déplanche can be applied. It is therefore my belief that *Saissetia coffeae* Déplanche is best suppressed, and that the stability within scale insect taxonomy is best served by making *Lecanium coffeae* Walker the type species of *Saissetia*.

Comment on the proposed precedence of *Culicoides puncticollis* (Becker, 1903) over *C. algecirensis* (Strobl, 1900) (Insecta, Diptera)

(Case 2716; see BZN **46**: 179–180)

R.W. Crosskey
The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

This is a clear-cut case where a familiar name should be given precedence over a senior subjective synonym. It is advisable for the Commission to act now before the senior synonym acquires further use. I support Dr Boorman's application.

Comments on the proposed conservation of *Callionymus pusillus* Delaroche, 1809 (Osteichthyes, Perciformes)

(Case 2688; see BZN **46**: 255–258)

(1) Alwyne Wheeler
Epping Forest Conservation Centre, High Beach, Loughton, Essex IG10 4AF, U.K.

1. There can be no objection to the conservation of the name *Callionymus pusillus* Delaroche, 1809 as requested by Ronald Fricke, as this is a name which has received frequent use by recent authors (see BZN **46**: 256, para. 5 for details).

2. However, it is quite specious to claim that this name is threatened by *Callionymus dracunculus* Linnaeus, 1758, and applying to the Commission for the suppression of that name is unnecessary. Fricke's request is based on the composite nature of the

taxon *Callionymus dracunculus*, which was founded by Linnaeus on earlier descriptions by Gronovius (1754) and Artedi (1738). Artedi's posthumous work comprised five parts of which the *Genera Piscium* and *Synonymia Nominum Piscium* were compilations from the earlier literature. In both of these he cited the work of Rondelet (1554), and the references derived from that work in Gesner (1620) and Willughby (1686), as 'Dracunculus'. Fricke is convinced that Rondelet's description and figure were based on a specimen of the species later described as *Callionymus pusillus* Delaroche, 1809. No specimens of Rondelet's exist today. However, the first reference cited by Linnaeus (and thus his primary source) was Gronovius (1754). This description was long and detailed and a specimen which can be related to his description exists in the Natural History Museum, London (Wheeler, 1958). (It should be noted here that in his application Fricke does not mention that Gronovius gave a detailed description of the specimen, and infers that this description was in some way indebted to earlier authors. Gesner and Willughby were indeed cited but only in the sense of synonyms). Much of Gronovius's material originated from the North Sea and there is no doubt that his description refers to a specimen of *C. dracunculus* which can be referred to *Callionymus lyra* Linnaeus, 1758.

3. Recent authors who have made a critical choice of the taxonomic options have treated *C. dracunculus* as a junior subjective synonym of *C. lyra*. This synonymy was discussed by Günther (1861), who cited earlier workers as far back as Gmelin (1789). Neill (1811, p. 531) appears to have been the first author to adopt the name *lyra* in preference to *dracunculus*, so acting as first reviser (Article 24 of the Code).

4. Most recent authors have used the name *C. pusillus* for the species described originally by Rondelet (1554) and named by Delaroche (1809).

5. In view of this it seems quite unnecessary to ask for a ruling which in effect suggests that the name *C. dracunculus* was based in a significant manner on Rondelet's (1554) description which was sketchy but illustrated, rather than on the first cited reference in Linnaeus (1758) to Gronovius (1754) for which a 'type' specimen exists (Wheeler, 1958). The primary source for the basis of *C. dracunculus* was Gronovius (1754), the secondary source was Artedi (1738) who referred to Rondelet. Because the widespread opinion amongst ichthyologists in the 19th and 20th centuries is that *C. dracunculus* is a junior subjective synonym of *C. lyra* it is unnecessary and undesirable to make a case for treating it for the first time as a senior synonym of *C. pusillus*.

6. While this case may seem relatively trivial it has wider consequences because work on Linnaean fishes (Fernholm & Wheeler, 1983; Wheeler, 1985, and unpublished) shows that there are many composite species when all sources are considered. If the present case is admitted as deserving of a ruling then there is a potential for numerous similar applications from zoologists determined to unearth hitherto ignored (but known) partial synonyms. This case, like other potential cases, does nothing to stabilise zoological nomenclature.

References

Fernholm, B. & Wheeler, A. 1983. Linnaean fish specimens in the Swedish Museum of Natural History, Stockholm. *Zoological Journal of the Linnean Society*, **78**: 199–286.

Gmelin, J. F. 1789. *Caroli a Linné Systema Naturae*. Ed. 13, vol. 1, part 3 (Amphibia & Pisces): 1033–1516.

Neill, P. 1811. A list of fishes found in the Frith of Forth, and rivers and lakes near Edinburgh, with remarks. *Memoirs. Wernerian Natural History Society*, **1**: 526–555.

Wheeler, A. 1985. The Linnaean Fish collection in the Linnean Society of London. *Zoological Journal of the Linnean Society*, **84**: 1–76.

(2) Ronald Fricke

Staatliches Museum für Naturkunde, Division of Ichthyology, Schloss Rosenstein, D-7000 Stuttgart 1, Fed. Rep. Germany

1. In his comment above, Alwyne Wheeler doubts that the name *Callionymus pusillus* Delaroche, 1809 is threatened by the older name *Callionymus dracunculus* Linnaeus, 1758. Wheeler supposes that the name *dracunculus* is composite, being based in part on old descriptions in works of Rondeletius (1554), Gesner (1620) and Willughby (1686), and in part on a description of Gronovius (1754) which was cited first by Linnaeus (1758).

2. Gronovius (1754) provided a description of a specimen of the species later named *Callionymus dracunculus* by Linnaeus (1758). Wheeler (1958) studied a later manuscript and unlabelled specimens assumed to originate in part from Gronovius, in part from a later collector and author. In his comment, Wheeler writes that 'much of Gronovius's material originated from the North Sea and there is no doubt that his description refers to a specimen of *C. dracunculus* which can be referred to *Callionymus lyra* Linnaeus, 1758'.

3. On the contrary, I have doubts about Gronovius's description which is so vague that no definite species can be identified, nor can we be sure about the collecting locality. The fact that 'most of Gronovius's material originated from the North Sea' is not enough to ensure that this material originated from there; also, there are three species living in the North Sea area (Fricke, 1986). The specimens accompanying the manuscript of Gronovius (1766–1777), identified by Wheeler (1958) as '*Callionymus dracunculus*', were not labelled and were mounted on paper. Moreover, the original description of Gronovius does not indicate an identity with the specimens of Wheeler (1958). In fact, it is not even certain whether the specimens referred to by Wheeler (1958) are all Gronovius's material or that of a later Dutch ichthyologist who is known to have made changes in the manuscript. Nor, even if Gronovius's material, do we know if it originated from before 1754 or from a later date.

4. As indicated above, the nature of Gronovius's description and material is uncertain (there is no illustration), there is no 'type' specimen of Gronovius's (as erroneously claimed by Wheeler in his comment), nor is there any definite specimen attributable to him. On the other hand, we have a definite specific identity in the description and illustration of Rondeletius (1554), and subsequent authors, who described a species now known as *Callionymus pusillus* Delaroche, 1809. We can therefore be sure that *C. dracunculus* Linnaeus, 1758 is to be identified with *C. pusillus* and not with *C. lyra* Linnaeus, 1758. In my opinion, Günther (1861) and other authors were wrong to treat the name *C. dracunculus* as a synonym for the females and immature males of *C. lyra*. It is therefore not only justified but necessary to ask for a ruling on the names *dracunculus* and *pusillus*, stabilising the current usage of the specific names of European species of *Callionymus*.

5. I do not foresee a danger of numerous applications to the Commission concerning composite species (cf. Wheeler's comment above). *C. dracunculus* cannot be considered a composite species since only its identity with *C. pusillus* can be demonstrated.

Comments on the proposed designation of a neotype for *Elephas primigenius* (currently *Mammuthus primigenius*; Mammalia, Proboscidea)

(Case 2726; see BZN **47**: 38–44).

(1) H. D. Kahlke
Institut für Quartärpaläontologie, Weimar, Deutsche Dem. Rep.

I visited the Institut für Geologie und Paläontologie in Göttingen late in 1986 and can confirm that the specimens designated by Osborn in 1942 as the lectotype and paralectotype of *Mammuthus primigenius* are no longer available for study and are regarded as having been destroyed during the last war. I support the proposal, which Dr Garutt first suggested at the 1982 INQUA Congress in Moscow, to designate the adult male skeleton from Taimir as the neotype.

(2) Andrei V. Sher
Severtsov Institute of Evolutionary Animal Morphology and Ecology, U.S.S.R. Academy of Sciences, Moscow, U.S.S.R.

The absence of a type specimen for such an important species as the woolly mammoth is a serious problem for palaeontologists. At present students from different countries are trying to clarify some disputed points in mammoth taxonomy and phylogeny. This is impossible without definitions, and it is necessary to know whether the European or the Siberian remains are to be regarded as typical for the species.

I agree with Dr Garutt that a Siberian type is preferable. It is known that specimens from Siberia were present in Blumenbach's collection. As Vera Gromova correctly noted, from the types mentioned by Dietrich and Osborn the last molar from Siberia was more suitable for identification of the species than was the deciduous premolar from Germany. Both these specimens are now lost and the designation of a neotype is necessary. The Taimir mammoth skeleton completely fulfils the conditions for neotype designation set out in the Code and I support the application.

(3) Alan Gentry
Department of Palaeontology, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Late Pleistocene occurrences of *Mammuthus primigenius* are likely to be much studied. Designating a Siberian specimen as the neotype would be helpful and I support the application.

(4) A. P. Currant
Department of Palaeontology, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Garutt, Gentry & Lister have proposed an excellent solution to the nomenclatural problems laid out in this paper. The woolly mammoth is a very widely known and studied species with a considerable popular following. Stabilisation of its binomen, *Mammuthus primigenius*, is highly desirable and the proposed designation of the Taimir mammoth as the neotype is in full accord with the modern concept of this species. I support the application.

OPINION 1567

Nonion de Montfort, 1808 (Foraminiferida): *Nautilus faba* Fichtel & Moll, 1798 designated as the type species

Ruling

(1) Under the plenary powers all previous designations of type species for the nominal genus *Nonion* de Montfort, 1808 are hereby set aside and *Nautilus faba* Fichtel & Moll, 1798 is designated as type species.

(2) The name *Nonion* de Montfort, 1808 (gender: masculine), type species by designation under the plenary powers in (1) above, *Nautilus faba* Fichtel & Moll, 1798, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *faba* Fichtel & Moll, 1798, as published in the binomen *Nautilus faba* (specific name of the type species of *Nonion* de Montfort, 1808), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2225/1

An application for the designation of *Nautilus faba* Fichtel & Moll, 1798 as the type species of *Nonion* de Montfort, 1808 was received from Drs H.J. Hansen (*University of Copenhagen, Copenhagen, Denmark*) & F. Rögl (*Naturhistorisches Museum Wien, Wien, Austria*) on 24 November 1978. The case was delayed until the publication of Rögl & Hansen's (1984) revision of Fichtel & Moll's 1798 *Testacea Microscopica*, and after further correspondence was published in BZN **45**: 104–105 (June 1988). Notice of the case was sent to appropriate journals. The proposed designation of *Nautilus faba* as type species of *Nonion* has been supported by Loeblich & Tappan (1988, p. 617), who wrote 'This action would maintain the genus and higher taxa based on it as these have generally been understood since 1808'. The case was also supported by Dr F.T. Banner (*The Natural History Museum, London*).

The treatise by Loeblich & Tappan refers to, and is consistent with, not only this but also five other applications by Drs Hansen & Rögl (see Opinions 1568–1572; Cases 2225/2 to 2225/5, 2225/7). All these cases resulted from the investigation by Rögl & Hansen (1984) of the Fichtel and Moll collection.

Another related case (2225/6; see BZN **45**: 116–117, 217–219) is discussed on p. 45.

References

Loeblich, A.R. Jr. & Tappan, H. 1988. *Foraminiferal Genera and their Classification*. 2 vols. 1182 pp., 847 pls. Van Nostrand Reinhold, New York.

Rögl, F. & Hansen, H.J. 1984. Foraminifera described by Fichtel & Moll in 1798. A revision of *Testacea Microscopica*. *Neue Denkschriften des Naturhistorischen Museums in Wien*, vol. 3. 143 pp. Berger, Wien.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 105. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert,

Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

faba, Nautilus, Fichtel & Moll, 1798, *Testacea microscopica aliaque minuta ex generibus* Argonauta *et* Nautilus *ad naturam picta et descripta*, p. 103.

Nonion de Montfort, 1808, *Conchyliologie systématique et classification méthodique des coquilles. Coquilles univalves, cloisonnées*, vol. 1, p. 210.

OPINION 1568

Hanzawaia Asano, 1944 (Foraminiferida): conserved

Ruling

(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) *Florilus* de Montfort, 1808;

(b) *Nonionina* d'Orbigny, 1826.

(2) The name *Hanzawaia* Asano, 1944 (gender: feminine), type species by original designation *Hanzawaia nipponica* Asano, 1944, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *nipponica* Asano, 1944, as published in the binomen *Hanzawaia nipponica* (specific name of the type species of *Hanzawaia* Asano, 1944), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Florilus* de Montfort, 1808, as suppressed in (1)(a) above;

(b) *Nonionina* d'Orbigny, 1826, as suppressed in (1)(b) above.

History of Case 2225/2

An application for the conservation of *Hanzawaia* Asano, 1944 was received from Drs H.J. Hansen (*University of Copenhagen, Copenhagen, Denmark*) & F. Rögl (*Naturhistorisches Museum Wien, Wien, Austria*) on 24 November 1978. The case was delayed until the publication of Rögl & Hansen's (1984) revision of Fichtel & Moll's 1798 *Testacea Microscopica* and after further correspondence published in BZN **45**: 106–108 (June 1988). Notice of the case was sent to appropriate journals.

As mentioned in BZN **45**: 106, para. 2, the nominal type species of *Florilus* is *F. stellatus* de Montfort, 1808. In a letter supporting the application, Dr F.T. Banner (*The Natural History Museum, London*) drew attention to the words of Parker & Jones (1860; reference below): 'Denys de Montfort ... selected from the Monograph of Fichtel and Moll several of their so-called *Nautili* ... he produced modified figures of these, and classified the whole according to his conchological system. ... His generic names are, for the most part, useless; since the several species, varieties and figured individuals of a genus have received a new binomial appellation at his hand'. Of *F. stellatus*, Parker & Jones (p. 5) wrote: 'A bad drawing after Fichtel & Moll's figures of *Nonionina asterizans*'. Dr Banner agreed with Parker & Jones (1860) (and with the application) that *F. stellatus* was merely a new and unnecessary name for *Nautilus asterizans* Fichtel & Moll, a view also shared by Loeblich & Tappan (1988, p. 720) in their recent treatise.

Voloshinova (1958; cf. para. 4 of the application) resurrected the name *Florilus*, applying it to a group of species similar to *Nonion*, a genus only very distantly related (at suborder level) to *Nautilus asterizans*. This wrong usage was temporarily followed by some authors, including Loeblich & Tappan (1964); Dr Banner said that his own designation (Banner & Culver, 1978; cf. para. 3 of the application) of a nonionid as a neotype for *F. stellatus* should be rejected as invalid, since the specimen was of Atlantic origin (whereas *F. stellatus* was Mediterranean) and, more importantly, the types of

Nautilus asterizans still exist. The treatment of *Nonionina* as a synonym of *Nonion* by various authors (para. 5 on p. 106) was also in error; the nonionid species which were wrongly treated as *Florilus* or *Nonionina* are referable to *Pseudononion* (para. 8 on p. 107).

Dr Banner said that para. 8 of the application would be clarified by reading 'Continued recognition of *Nautilus asterizans* (the type species of *Nonionina*) as the senior synonym of *Florilus stellatus* de Montfort, the type species of *Florilus*, makes *Nonionina* and *Florilus* senior subjective synonyms of *Hanzawaia*, with consequent disruption....'

Of *Hanzawaia* and *Pseudononion* (cf. paras. 7 and 8 of the application) Dr Banner wrote: 'I have not had time or opportunity to formulate numerically a case for the usage of *Hanzawaia* and *Pseudononion*, but I can assure you that *Hanzawaia*, in particular, has been very extensively (and correctly) used since its proposal by Asano in 1944. *Hanzawaia* has been recorded from Oligocene to Recent marine sediments and it is cosmopolitan, being known from low and mid latitudes, trans-world. *Pseudononion* Asano, 1936, has been recorded less frequently but it is also known to have a cosmopolitan occurrence in marine sediments from Danian age to Holocene. Both *Hanzawaia* and *Pseudononion* are accepted by Loeblich & Tappan (1988); there can be no doubt that their loss would cause a very great deal of unnecessary confusion. I repeat, this application by Hansen and Rögl should be supported'.

The letter by Dr Banner was abstracted, as above, on the voting paper.

Reference

Parker, V.K. & Jones, T.R. 1860. On the nomenclature of the foraminifera. *Annals and Magazine of Natural History*, (3)**8**(35): 1–11.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 107. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 2: Lehtinen and Thompson.

Dupuis abstained. Thompson considered that insufficient evidence had been provided to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Florilus de Montfort, 1808, *Conchyliologie systématique et classification méthodique des coquilles. Coquilles univalves, cloisonnées*, vol. 1, p. 134.

Hanzawaia Asano, 1944, *Journal of the Geological Society of Japan*, **51**(606): 97.

nipponica, Hanzawaia, Asano, 1944, *Journal of the Geological Society of Japan*, **51**(606): 98.

Nonionina d'Orbigny, 1826, *Annales des Sciences Naturelles*, (1)**7**: 293.

OPINION 1569

Calcarina d'Orbigny, 1826 (Foraminiferida): conserved

Ruling

(1) Under the plenary powers the name *Tinoporus* de Montfort, 1808 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Calcarina* d'Orbigny, 1826 (gender: feminine), type species *Nautilus spengleri* Gmelin, 1791 by subsequent designation by Parker & Jones (1859), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *spengleri* Gmelin, 1791, as published in the binomen *Nautilus spengleri* (specific name of the type species of *Calcarina* d'Orbigny, 1826), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Tinoporus* de Montfort, 1808, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2225/3

An application for the conservation of *Calcarina* d'Orbigny, 1826 was received from Drs H.J. Hansen (*University of Copenhagen, Copenhagen, Denmark*) & F. Rögl (*Naturhistorisches Museum Wien, Wien, Austria*) on 24 November 1978. The case was delayed until the publication of Rögl & Hansen's (1984) revision of Fichtel & Moll's 1798 *Testacea Microscopica* and after further correspondence published in BZN **45**: 109–111 (June 1988). Notice of the case was sent to appropriate journals.

This application had the support of Dr F.T. Banner (*The Natural History Museum, London*).

With reference to BZN **45**: 110, para. 5, *Tinoporus baculatus* was based on material before de Montfort and on that to which he referred in his references (see para. 4). The specimen of *Nautilus spengleri* figured by Fichtel & Moll on their pl. 15, figs. i–k, and mentioned by de Montfort, is thus a syntype of *T. baculatus*. The statement by Rögl & Hansen (1984, p. 60) that this specimen is the 'holotype' is incorrect, but makes it (under Article 74b) the lectotype. By this selection *T. baculatus* de Montfort, 1808 becomes a junior subjective synonym of *N. spengleri* Gmelin, 1791, and *Tinoporus* de Montfort, 1808 is thereby made a senior subjective synonym of *Calcarina* d'Orbigny, 1826. The ruling suppresses *Tinoporus* in order to conserve *Calcarina*.

The words 'specific' and '*baculatus*' should be deleted from para. 5, penultimate line. There is no need for the suppression of the name *baculatus* de Montfort, 1808, as this is only a junior subjective synonym of *spengleri* Gmelin, 1791. Proposals (1)(b) and (5) in para. 6 on p. 110 were therefore withdrawn.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 110, amended as noted above. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert,

Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

Thompson considered that insufficient evidence had been provided to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Calcarina d'Orbigny, 1826, *Annales des Sciences Naturelles*, (1)**7**: 276.

spengleri, Nautilus, Gmelin, 1791, *Systema naturae Linnei*, Ed. 13, vol. 1(6), p. 3371.

Tinoporus de Montfort, 1808, *Conchyliologie systématique et classification méthodique des coquilles. Coquilles univalves, cloisonnées*, vol. 1, p. 147.

OPINION 1570

Dendritina d'Orbigny, 1826 (Foraminiferida): conserved

Ruling

(1) Under the plenary powers the name *Pelorus* de Montfort, 1808 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Dendritina* d'Orbigny, 1826 (gender: feminine), type species *Dendritina arbuscula* d'Orbigny, 1826 by subsequent designation by Cushman (1927), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *arbuscula* d'Orbigny, 1826, as published in the binomen *Dendritina arbuscula* (specific name of the type species of *Dendritina* d'Orbigny, 1826), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Pelorus* de Montfort, 1808, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2225/4

An application for the conservation of *Dendritina* d'Orbigny, 1826 was received from Drs H.J. Hansen (*University of Copenhagen, Copenhagen, Denmark*) & F. Rögl (*Naturhistorisches Museum Wien, Wien, Austria*) on 24 November 1978. The case was delayed until the publication of Rögl & Hansen's (1984) revision of Fichtel & Moll's 1798 *Testacea Microscopica*, and after further correspondence was published in BZN **45**: 112–113 (June 1988). Notice of the case was sent to appropriate journals. The application had the support of Dr F.T. Banner (*The Natural History Museum, London*).

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 112. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 2: Mroczkowski and Thompson.

Thompson considered that insufficient evidence had been provided to decide whether use of the plenary powers was justified. Mroczkowski would have favoured giving *Dendritina* precedence over *Pelorus*, but did not support suppression of the latter name because the synonymy is subjective.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

arbuscula, *Dendritina*, d'Orbigny, 1826, *Annales des Sciences Naturelles*, (1)**7**: 285.

Dendritina d'Orbigny, 1826, *Annales des Sciences Naturelles*, (1)**7**: 285.

Pelorus de Montfort, 1808, *Conchyliologie systématique et classification méthodique des coquilles. Coquilles univalves, cloisonnées*, vol. 1, p. 22.

OPINION 1571

Planularia Defrance, 1826 (Foraminiferida): conserved

Ruling

(1) Under the plenary powers the following names are hereby suppressed:

(a) *Linthuris* de Montfort, 1808, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(b) *Planularia* Nilsson, 1826, for the purposes of both the Principle of Priority and the Principle of Homonymy.

(2) The name *Planularia* Defrance, 1826 (gender: feminine), type species by monotypy *Peneroplis auris* Defrance, 1824, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *auris* Defrance, 1824, as published in the binomen *Peneroplis auris* (specific name of the type species of *Planularia* Defrance, 1826), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Linthuris* de Montfort, 1808, as suppressed in (1)(a) above;

(b) *Planularia* Nilsson, 1826, as suppressed in (1)(b) above.

History of Case 2225/5

An application for the conservation of *Planularia* Defrance, 1826 was received from Drs H.J. Hansen (*University of Copenhagen, Copenhagen, Denmark*) & F. Rögl (*Naturhistorisches Museum Wien, Wien, Austria*) on 24 November 1978. The case was delayed until the publication of Rögl & Hansen's (1984) revision of Fichtel & Moll's 1798 *Testacea Microscopica*, and after further correspondence was published in BZN **45**: 114–115 (June 1988). Notice of the case was sent to appropriate journals. The application had the support of Dr F.T. Banner (*The Natural History Museum, London*).

The lectotype of *Nautilus cassis* was designated by Rögl & Hansen (1984, p. 62; cf. para. 2 of the application). *Planularia* Defrance was published in September 1826, and over 100 species have been referred to it. The exact date of *Planularia* Nilsson, 1826 is unknown; under Article 21c it would be taken as [31 December 1826], and its suppression was proposed as a precaution in case it should be found to be senior to *Planularia* Defrance. Contrary to para. 4 of the application, *P. elliptica* Nilsson, 1826 was designated type species of the Nilsson genus by Loeblich & Tappan (1964, p. C522); *Planularia* Nilsson has not been used as valid, and Loeblich & Tappan (1964; 1988, p. 409) treat it as an invalid (because a homonym) senior synonym of *Palmula* Lea, 1833.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 115. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de

Souza, Minelli, Mroczkowski (in part), Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 2: Lehtinen and Thompson.

Thompson considered that insufficient evidence had been provided to decide whether use of the plenary powers was justified. Mroczkowski voted for proposals (1)(b), (2), (3) and (4)(b); he would have favoured giving *Planularia* Defrance precedence over *Linthuris*, but did not support suppression of the latter name because the synonymy is subjective.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

auris, Peneroplis, Defrance, 1824, *Dictionnaire des Sciences Naturelles*, vol. 32, p. 178.

Linthuris de Montfort, 1808, *Conchyliologie systématique et classification méthodique des coquilles. Coquilles univalves, cloisonnées*, vol. 1, p. 254.

Planularia Defrance, 1826, *Dictionnaire des Sciences Naturelles*, vol. 41, p. 244.

Planularia Nilsson, 1826, *Kungliga Svenska Vetenskapakademiens Handlingar*, **1825**(2): 342.

OPINION 1572

Nautilus repandus Fichtel & Moll, 1798 (currently *Eponides repandus*; Foraminiferida): neotype replaced by rediscovered holotype

Ruling

(1) Under the plenary powers the neotype designation by Loeblich & Tappan (1962) for *Nautilus repandus* Fichtel & Moll, 1798 is hereby set aside.

(2) The name *Eponides* de Montfort, 1808 (gender: masculine), type species by original designation *Nautilus repandus* Fichtel & Moll, 1798, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *repandus* Fichtel & Moll, 1798, as published in the binomen *Nautilus repandus* and as defined by the holotype (Inv. no. MI-470, Naturhistorisches Museum, Vienna) (specific name of the type species of *Eponides* de Montfort, 1808), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2225/7

An application for the setting aside of the neotype for *Nautilus repandus* Fichtel & Moll, 1798 was received from Drs H.J. Hansen (*Geological Institute, University of Copenhagen, Copenhagen, Denmark*) & F. Rögl (*Naturhistorisches Museum Wien, Wien, Austria*) on 24 November 1978. The case was delayed until the publication of Rögl & Hansen's (1984) revision of Fichtel & Moll's 1798 *Testacea Microscopica* and after correspondence the case was published in BZN **45**: 118–119 (June 1988). Notice of the case was sent to appropriate journals. The application was supported by Dr F.T. Banner (*The Natural History Museum, London*) and by Loeblich & Tappan (1988, p. 549). The holotype is redescribed on pp. 31–32 of Rögl & Hansen (1984).

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 118–119. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Original references

The following are the original references to names placed on Official Lists by the ruling given in the present Opinion:

Eponides de Montfort, 1808, *Conchyliologie systématique et classification méthodique des coquilles. Coquilles univalves, cloisonnées*, vol. 1, p. 127.

repandus, Nautilus, Fichtel & Moll, 1798, *Testacea microscopica aliaque minuta ex generibus* Argonauta *et* Nautilus *ad naturam picta et descripta*, p. 35.

OPINION 1573

Madrepora limax Esper, 1797 (currently *Herpolitha limax*) and *Fungia talpina* Lamarck, 1801 (currently *Polyphyllia talpina*; both Cnidaria, Anthozoa): specific names conserved

Ruling

(1) Under the plenary powers:

(a) the specific name *limax* Houttuyn, 1772, as published in the binomen *Madrepora limax*, and all other uses of that name prior to the publication of *Madrepora limax* Esper, 1797, are hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;

(b) the following specific names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(i) *talpa* Houttuyn, 1772, as published in the binomen *Madrepora talpa*;

(ii) *trilinguis* Boddaert, 1768, as published in the binomen *Madrepora trilinguis*.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *limax* Esper, 1797, as published in the binomen *Madrepora limax*;

(b) *talpina* Lamarck, 1801, as published in the binomen *Fungia talpina*.

(3) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *limax* Houttuyn, 1772, as published in the binomen *Madrepora limax* and as suppressed in (1)(a) above;

(b) *talpa* Houttuyn, 1772, as published in the binomen *Madrepora talpa* and as suppressed in (1)(b)(i) above;

(c) *trilinguis* Boddaert, 1768, as published in the binomen *Madrepora trilinguis* and as suppressed in (1)(b)(ii) above.

History of Case 2609

An application for the conservation of the specific names of *Madrepora limax* Esper, 1797 and *Fungia talpina* Lamarck, 1801, two mushroom corals, was received from Dr Bert Hoeksema (*Rijksmuseum van Natuurlijke Historie, 2300 RA Leiden, The Netherlands*) on 17 June 1987. After correspondence the case was published in BZN **45**: 13–17 (March 1988). Notice of the case was sent to appropriate journals. No comments were received. The name *limax* on line 3 of BZN **45**: 14 should read *talpa*.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 15. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Lehtinen.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

limax, Madrepora, Esper, 1797, *Fortsetzungen der Pflanzenthiere*, vol. 1, p. 77.
limax, Madrepora, Houttuyn, 1772, *Natuurlyke Historie of Uitvoerige Beschryving der Dieren, Planten en Mineraalen*, vol. 1, part 17, p. 119.
talpa, Madrepora, Houttuyn, 1772, *Natuurlyke Historie of Uitvoerige Beschryving der Dieren, Planten en Mineraalen*, vol. 1, part 17, p. 116.
talpina, Fungia, Lamarck, 1801, *Système des animaux sans vertèbres*, p. 370.
trilinguis, Madrepora, Boddaert, 1768, *Lyst der Plant-Dieren*, p. 613, pl. 14.

OPINION 1574

Sphaeroma hookeri Leach, 1814 (currently *Lekanesphaera hookeri*; Crustacea, Isopoda): specific name conserved

Ruling

(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) *conglobator* Pallas, 1766, as published in the binomen *Oniscus conglobator*;

(b) *globator* Pallas, 1772, as published in the binomen *Oniscus globator*.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Lekanesphaera* Verhoeff, 1943 (gender: feminine), type species by monotypy *Europosphaera* (*Lekanesphaera*) *excavatum* Verhoeff, 1943 (a junior subjective synonym of *Sphaeroma monodi* Arcangeli, 1934);

(b) *Sphaeroma* Bosc, 1802 (gender: neuter), type species by subsequent designation by Latreille (1810) *Oniscus serratus* Fabricius, 1787.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *hookeri* Leach, 1814, as published in the binomen *Sphaeroma hookeri*;

(b) *monodi* Arcangeli, 1934, as published in the binomen *Sphaeroma monodi* (senior subjective synonym of *Europosphaera* (*Lekanesphaera*) *excavatum* Verhoeff, 1943, the type species of *Lekanesphaera* Verhoeff, 1943);

(c) *serratus* Fabricius, 1787, as published in the binomen *Oniscus serratus* (specific name of the type species of *Sphaeroma* Bosc, 1802).

(4) The name SPHAEROMATIDAE (correction by Dahl, 1916, p. 28 of SPHAEROMIDES) Latreille, 1825 is hereby placed on the Official List of Family-Group Names in Zoology.

(5) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *conglobator* Pallas, 1766, as published in the binomen *Oniscus conglobator* and as suppressed in (1)(a) above;

(b) *globator* Pallas, 1772, as published in the binomen *Oniscus globator* and as suppressed in (1)(b) above.

(6) The name *Europosphaera* Verhoeff, 1943 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology (unavailable because published without fixation of the type species).

History of Case 2613

An application for the conservation of the specific name of *Sphaeroma hookeri* Leach, 1814 was received from Mr B.J.M. Jacobs & Dr L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 17 June 1987. After correspondence the case was published in BZN **45**: 21–24 (March 1988). Notice of the case was sent to appropriate journals. No comments were received. It was noted on the voting paper that proposal (2)(b) on BZN **45**: 23 should have read: *monodi* Arcangeli, 1934, as published in the binomen *Sphaeroma monodi* (senior subjective synonym of the name of the type species of *Lekanesphaera* Verhoeff, 1943).

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 23. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 2: Lehtinen and Thompson.

Thompson considered that the application provided insufficient evidence to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

conglobator, Oniscus, Pallas, 1766, *Miscellanea zoologica*, p. 194.
Europosphaera Verhoeff, 1943, *Zeitschrift für Morphologie und Ökologie der Tiere*, **39**: 169.
globator, Oniscus, Pallas, 1772, *Spicilegia zoologica*, (9): 70.
hookeri, Sphaeroma, Leach, 1814, *in* Brewster, *The Edinburgh Encyclopaedia*, vol. 7, p. 433.
Lekanesphaera Verhoeff, 1943, *Zeitschrift für Morphologie und Ökologie der Tiere*, **39**: 169.
monodi, Sphaeroma, Arcangeli, 1934, *Bollettino dei Musei di Zoologia e di Anatomia Comparata della R. Università di Torino*, **44**(3)(48): 149.
serratus, Oniscus, Fabricius, 1787, *Mantissa Insectorum*, p. 242.
Sphaeroma Bosc, 1802, *Histoire naturelle des Crustacés, contenant leur description et leurs moeurs*, **2**: 182.
SPHAEROMATIDAE Latreille, 1825, *Familles naturelles du règne animal, exposées succinctement et dans un ordre analytique, avec l'indication de leurs genres*, p. 294.

OPINION 1575

Coenobita Latreille, 1829 (Crustacea, Decapoda): conserved

Ruling

(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) *Carcinion* Jarocki, 1825;
(b) *Cenobites* Berthold, 1827;
(c) *Eremita* Osbeck, 1765;
(d) *javanica* Osbeck, 1765, as published in the binomen *Eremita javanica*.

(2) The name *Coenobita* Latreille, 1829 (gender: masculine), type species by monotypy *Pagurus clypeatus* Fabricius, 1787, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *clypeatus* Fabricius, 1787, as published in the binomen *Pagurus clypeatus* (specific name of the type species of *Coenobita* Latreille, 1829), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name COENOBITIDAE Dana, 1851 (correction by Ortmann (1892) of CENOBITIDAE) (type genus *Coenobita* Latreille, 1829) is hereby placed on the Official List of Family-Group Names in Zoology.

(5) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Carcinion* Jarocki, 1825, as suppressed in (1)(a) above;
(b) *Cenobites* Berthold, 1827 as suppressed in (1)(b) above;
(c) *Eremita* Osbeck, 1765 as suppressed in (1)(c) above;
(d) *Cenobita* H. Milne Edwards, 1837 (an incorrect subsequent spelling of *Coenobita* Latreille, 1829).

(6) The name *javanica* Osbeck, 1765, as published in the binomen *Eremita javanica* and as suppressed in (1)(d) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

(7) The name CENOBITIDAE Dana, 1851 is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology (an incorrect original spelling of COENOBITIDAE).

History of Case 2610

An application for the conservation of *Coenobita* Latreille, 1829, the name of a hermit crab genus, was received from Drs G.J. Morgan (*Western Australian Museum, Perth, Australia*) & L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 17 June 1987 and published in BZN **45**: 18–20 (March 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 19–20. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert,

Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Śtarobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

Carcinion Jarocki, 1825, *Zoologia czyli zwiérzetopismo Ogólne, podlug Náynowszego Systematu*, vol. 5, p. 108.

Cenobita H. Milne Edwards, 1837, *Histoire naturelle des Crustacés*, vol. 2, p. 238.

Cenobites Berthold, 1827, *Latreille's Natürliche Familien des Thierreichs*, p. 263.

CENOBITIDAE Dana, 1851, *Proceedings of the Academy of Natural Sciences of Philadelphia*, **5**: 269.

clypeatus, Pagurus, Fabricius, 1787, *Mantissa Insectorum*, vol. 1, p. 328.

Coenobita Latreille, 1829, *Les Crustacés, les Arachnides et les Insectes, distribués en familles naturelles, ouvrage formant les tomes 4 et 5 celui de M. le baron Cuvier sur le règne animal*, Ed. 2, p. 77.

COENOBITIDAE Dana, 1851, *Proceedings of the Academy of Natural Sciences of Philadelphia*, **5**: 269.

Eremita Osbeck, 1765, *Reise nach Ostindien und China*, p. 356.

javanica, Eremita, Osbeck, 1765, *Reise nach Ostindien und China*, p. 356.

OPINION 1576

Palaemon longirostris H. Milne Edwards, 1837 (Crustacea, Decapoda): specific name conserved

Ruling

(1) Under the plenary powers:

(a) the specific name *albescens* Pennant, 1812, as published in the binomen *Astacus albescens*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(b) the specific name *longirostris* H. Milne Edwards, 1837 (p. 394), as published in the binomen *Palaemon longirostris*, is hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *longirostris* H. Milne Edwards, 1837 (p. 392), as published in the binomen *Palaemon longirostris*;

(b) *serratus* Pennant, 1777, as published in the binomen *Astacus serratus* and as defined by the lectotype designated in BZN **45**: 121, para. 4, i.e. the specimen figured by Pennant (1777, p. 16, fig. 28);

(c) *styliferus* H. Milne Edwards, 1840, as published in the binomen *Palaemon styliferus*.

(3) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *albescens* Pennant, 1812, as published in the binomen *Astacus albescens*, and as suppressed in (1)(a) above;

(b) *edwardsii* Heller, 1863, as published in the binomen *Palaemon edwardsii* (a junior objective synonym of *longirostris* H. Milne Edwards, 1837 (p. 392));

(c) *longirostris* H. Milne Edwards, 1837 (p. 394), as published in the binomen *Palaemon longirostris*, and as suppressed in (1)(b) above.

History of Case 2612

An application for the conservation of *Palaemon longirostris* H. Milne Edwards, 1837 (p. 392) was received from Dr L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 17 June 1987. After correspondence the case was published in BZN **45**: 120–124 (June 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 123. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

Thompson considered that insufficient evidence had been provided to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

albescens, Astacus, Pennant, 1812, *British Zoology*, Ed. 5, vol. 4, p. 25.
edwardsii, Palaemon, Heller, 1863, *Die Crustaceen des südlichen Europa*, p. 265.
longirostris, Palaemon, H. Milne Edwards, 1837, *Histoire Naturelle des Crustacés*, vol. 2, p. 392. [Official List]
longirostris, Palaemon, H. Milne Edwards, 1837, *Histoire Naturelle des Crustacés*, vol. 2, p. 394. [Official Index]
serratus, Astacus, Pennant, 1777, *British Zoology*, Ed. 4, vol. 4, p. 19.
styliferus, Palaemon, H. Milne Edwards, 1840, *Histoire Naturelle des Crustacés*, vol. 3, p. 638.

OPINION 1577

Hydrobius Leach, 1815 (Insecta, Coleoptera): *Dytiscus fuscipes* Linnaeus, 1758 conserved as type species, and *Berosus* Leach, 1817 (Insecta, Coleoptera): conserved

Ruling

(1) Under the plenary powers all fixations of type species for the nominal genus *Hydrobius* Leach, 1815 are hereby set aside, and the designation by Hope (1838) of *Dytiscus fuscipes* Linnaeus, 1758 as the type species is conserved.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Hydrobius* Leach, 1815 (gender: masculine), type species by subsequent designation by Hope (1838) *Dytiscus fuscipes* Linnaeus, 1758, as conserved in (1) above;
- (b) *Berosus* Leach, 1817 (gender: masculine), type species by monotypy *Dytiscus luridus* Linnaeus, 1761.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *fuscipes* Linnaeus, 1758, as published in the binomen *Dytiscus fuscipes* (specific name of the type species of *Hydrobius* Leach, 1815);
- (b) *luridus* Linnaeus, 1761, as published in the binomen *Dytiscus luridus* (specific name of the type species of *Berosus* Leach, 1817).

History of Case 2607

An application for the conservation of *Dytiscus fuscipes* Linnaeus, 1758 as the type species of the water beetle genus *Hydrobius* Leach, 1815, so also conserving *Berosus* Leach, 1817, was received from Dr M. Hansen (*Zoologisk Museum, København, Denmark*) on 11 May 1987 and published in BZN **45**: 25–26 (March 1988). Notice of the case was sent to appropriate journals. No comments were received.

'*D. luridus* Leach, 1761' on the first line of para. 6 on p. 25 should be amended to read '*D. luridus* Linnaeus, 1761'.

It would have been possible to achieve the result sought by Dr Hansen (conservation of the usage of *Hydrobius* and *Berosus* described in para. 6) by using the plenary powers to suppress *Hydrobius* as of Leach, 1815 for both the Principles of Priority and Homonymy and to take the name from Leach, 1817. Dr Hansen did not ask for this; *Hydrobius* is always given the date 1815 (cf. para. 4), and Dr Hansen's proposal to accept this date has advantages. However, since *Dytiscus fuscipes* was not included in 1815, proposals (1) and (2) on p. 26 were amended on the voting papers to read:

'(1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Hydrobius* Leach, 1815 and to conserve the designation of *Dytiscus fuscipes* Linnaeus, 1758 by Hope (1838);

(2) (a) *Hydrobius* Leach, 1815 (gender: masculine), type species by subsequent designation by Hope (1838), as conserved in (1) above, *Dytiscus fuscipes* Linnaeus, 1758.'

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 26, as amended above. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 2: Savage and Thompson.

Dupuis and Lehtinen abstained. Savage commented that he would have favoured dating *Hydrobius* from 1817. Thompson said that there was insufficient evidence in the application to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Berosus Leach, 1817, *The zoological miscellany*, vol. 3, p. 92.
fuscipes, Dytiscus, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 411.
Hydrobius Leach, 1815, *in* Brewster, *Edinburgh Encyclopaedia*, vol. 9, p. 96.
luridus, Dytiscus, Linnaeus, 1761, *Fauna Svecica*, Ed. 2, p. 214.

OPINION 1578

Vespa triangulum Fabricius, 1775 (currently *Philanthus triangulum*; Insecta, Hymenoptera): specific name conserved

Ruling

(1) Under the plenary powers the specific name *ruspatrix* Linnaeus, 1767, as published in the binomen *Vespa ruspatrix*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *triangulum* Fabricius, 1775, as published in the binomen *Vespa triangulum*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *ruspatrix* Linnaeus, 1767, as published in the binomen *Vespa ruspatrix* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2608

An application for the conservation of the specific name of the 'bee-wolf' *Vespa triangulum* Fabricius, 1775 was received from Dr W.J. Pulawski (*California Academy of Sciences, San Francisco, California, U.S.A.*) on 2 June 1987. After correspondence the case was published in BZN **45**: 34–35 (March 1988). Notice of the case was sent to appropriate journals. Comments in support from O. Lomholdt (*Zoologisk Museum, København, Denmark*) and J. Hamon (*4 rue de Coteau, Gaillard, France*) were published in BZN **46**: 45 (March 1989).

A similar application was received on 12 November 1987 from Dr R.T. Simon Thomas (*Instituut voor Taxonomische Zoologie, Amsterdam, The Netherlands*), as noted on BZN **45**: 35, who mentioned that (as well as being an apicultural pest) *Philanthus triangulum* is an important laboratory insect in the field of toxinological research (see, for example, Piek, T. et al. (1985), Philanthotoxins: a review of the diversity of actions on synaptic transmission. *Pesticide Science*, **16**: 488–494).

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 34–35. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Lehtinen.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

ruspatrix, Vespa, Linnaeus, 1767, *Systema Naturae*, Ed. 12, vol. 1, part 2, p. 951.
triangulum, Vespa, Fabricius, 1775, *Systema Entomologiae*, p. 373.

OPINION 1579

Pycinaster magnificus Spencer, 1913 (Echinodermata, Asteroidea): specific name conserved

Ruling

(1) Under the plenary powers the specific name *dutemplei* d'Orbigny, 1850, as published in the binomen *Pentetagonaster dutemplei*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *magnificus* Spencer, 1913, as published in the binomen *Pycinaster magnificus*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *dutemplei* d'Orbigny, 1850, as published in the binomen *Pentetagonaster dutemplei* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2564

An application for the conservation of *Pycinaster magnificus* Spencer, 1913 was received from M G. Breton (*Muséum d'Histoire Naturelle, Le Havre, France*) on 18 March 1986. After correspondence the case was published in BZN **45**: 125–126 (June 1988). Notice of the case was sent to appropriate journals. A comment in support received from C.W. Wright (*Beaminster, Dorset, U.K.*) was published in BZN **46**: 46 (March 1989)

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 126. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Mroczkowski, Nielsen, Nye, Ride, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 3: Holthuis, Minelli and Thompson.

No vote was returned by Savage.

Holthuis commented that the name *magnificus* had only had limited use. Thompson considered that insufficient evidence had been presented to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

dutemplei, Pentetagonaster, d'Orbigny, 1850, *Prodrome de paléontologie stratigraphique universelle des animaux mollusques et rayonnés*, vol. 2, p. 274.

magnificus, Pycinaster, Spencer, 1913, *Philosophical Transactions of the Royal Society of London*, (B)**204**: 125.

OPINION 1580

Cordylodus? *dubius* Rhodes, 1953 (currently *Distomodus dubius*; Conodonta): specific name conserved

Ruling

(1) Under the plenary powers the specific name *spinosum* Harley, 1861, as published in the binomen *Astacoderma spinosum*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *dubius* Rhodes 1953, as published in the binomen *Cordylodus dubius* (as *Cordylodus*? *dubius*), is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *spinosum* Harley, 1861, as published in the binomen *Astacoderma spinosum* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2308

An application for the conservation of *Cordylodus*? *dubius* Rhodes, 1953 was received from Drs L. Jeppsson (*Lunds Universitet, Sweden*) & R.J. Aldridge (*University of Nottingham, England, U.K.*) on 14 June 1979. After correspondence the case was published in BZN **45**: 127–129 (June 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 128. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Kraus, Macpherson, Mahnert, Martins de Souza, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 5: Dupuis, Holthuis, Kabata, Lehtinen and Minelli.

Holthuis considered that as the nominal species *Astacoderma spinosum* had a holotype and as this name was almost 100 years older than *Cordylodus*? *dubius* there was no good reason not to follow priority. However, as pointed out by the authors (BZN **45**: 127, para. 1), the species is quite common and geographically widespread. The paucity of references prior to Rhodes (1953) reflects the lack of appreciation until recent times of the nature and stratigraphic significance of conodonts. Dupuis would have favoured giving *dubius* precedence over *spinosum*, since the synonymy is subjective. Kabata did not think the case for overturning priority was strong enough.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

dubius, *Cordylodus*?, Rhodes, 1953, *Philosophical Transactions of the Royal Society of London*, (B)**237**: 299.

spinosum, *Astacoderma*, Harley, 1861, *Quarterly Journal of the Geological Society of London*, **17**: 550.

OPINION 1581

Hydrolycus Müller & Troschel, 1844 (Osteichthyes, Cypriniformes): *Hydrocyon scomberoides* Cuvier, 1819 confirmed as the type species

Ruling

(1) It is hereby confirmed that the nominal species *Hydrocyon scomberoides* Cuvier, 1819 (non Valenciennes, 1849 nec Müller & Troschel, 1844) is the type species of the nominal genus *Hydrolycus* Müller & Troschel, 1844.

(2) The name *Hydrolycus* Müller & Troschel, 1844 (gender: masculine), type species by monotypy and confirmed in (1) above, *Hydrocyon scomberoides* Cuvier, 1819, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *scomberoides* Cuvier, 1819, as published in the binomen *Hydrocyon scomberoides* and as defined by the holotype A.8659-81.87.2.3 in the Muséum National d'Histoire naturelle, Paris (specific name of the type species of *Hydrolycus* Müller & Troschel, 1844), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2556

An application for the confirmation of *Hydrocyon scomberoides* Cuvier, 1819 as the type species of *Hydrolycus* Müller & Troschel, 1844 was received from Drs J. Géry (*Argentonesse, Saint Cyprien, France*) & V. Mahnert (*Muséum d'Histoire naturelle, Genève, Switzerland*) on 10 February 1986. After correspondence the case was published in BZN **45**: 38–40 (March 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 39. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 28: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Hydrolycus Müller & Troschel, 1844, *Archiv für Naturgeschichte*, Berlin, **10**(1): 93.

scomberoides, Hydrocyon, Cuvier, 1819, *Mémoires du Muséum d'Histoire naturelle*, Paris, **5**: 357.

OPINION 1582

Ictiobus Rafinesque, 1820 (Osteichthyes, Cypriniformes): conserved

Ruling

(1) Under the plenary powers:
- (a) the name *Amblodon* Rafinesque, 1819 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (b) it is hereby ruled that the correct original spelling of the generic name *Ictiorus* Rafinesque, 1820 is deemed to be *Ictiobus*.

(2) The name *Ictiobus* Rafinesque, 1820 (gender: masculine), type species *Catostomus bubalus* Rafinesque, 1818 by subsequent designation by Agassiz (1854), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *bubalus* Rafinesque, 1818, as published in the binomen *Catostomus bubalus* (specific name of the type species of *Ictiobus* Rafinesque, 1820), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
- (a) *Amblodon* Rafinesque, 1819, as suppressed in (1)(a) above;
- (b) *Ictiorus* Rafinesque, 1820 (ruled in (1)(b) above to be an incorrect original spelling of *Ictiobus* Rafinesque, 1820).

History of Case 2598

An application for the conservation of *Ictiobus* Rafinesque, 1820 was received from Drs R.M. Bailey (*University of Michigan, Michigan, U.S.A.*) & W.N. Eschmeyer (*California Academy of Science, San Francisco, California, U.S.A.*) on 2 March 1987 and published in BZN **45**: 36–37 (March 1988). Notice of the case was sent to appropriate journals. No comments were received. The following information, which did not affect the essence of the application, was noted on the voting paper.

As stated in para. 1, Rafinesque (1819, p. 421) proposed *Amblodon* for two species, one of which was the 'brown buffalo-fish', his *Catostomus bubalus* of 1818. The next year (cf. para. 2) he transferred the name *Amblodon* to the unrelated 'grunting perch', previously (and validly) called *Aplodinotus grunniens* Rafinesque, 1819 (p. 418). On p. 24 of the *Ichthyologia Ohiensis* (and previously in January 1820 in *The Western Review*) Rafinesque explained this transfer: 'The name [*Amblodon*] means obtuse teeth ... Only one species is known yet ... The structure of these teeth [of *Aplodinotus grunniens*] is very singular and peculiar ... [They] are common in many museums, where they are erroneously called teeth of the Buffalo-fish ... I was deceived so far by this mistake ... this error I now correct with pleasure'. Thus *Amblodon* had been mistakenly applied to *bubalus*, and it was not used again for this species.

The name *Ictiorus* has been printed only once, in June 1820 in *The Western Review* (see para. 3). As stated in para. 4, the name appeared twice as *Ictiobus* in the volume *Ichthyologia Ohiensis* later that year, and this spelling has been used ever since. *Ictiorus* was probably a misprint: Jordan & Evermann (1896, p. 163) point out that *Ictiobus bubalus* derives from the Greek for 'Buffalo bull-fish'.

Ictiorus is on p. 299 of Rafinesque, C.S. 1820 (June). Natural History of the Fishes of the Ohio River and its Tributary Streams. Fishes of the River Ohio. *Western Review and Miscellaneous Magazine*, Lexington, **2** (5): 299–307.

Ictiobus, with exactly the same text, is on pp. 55 and 89 of *Ichthyologia Ohiensis*, 1820 (November or December). 90 pp. Hunt, Lexington.

Proposal (4) on BZN **45**: 37 was amended to read 'to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:

(a) *Amblodon* Rafinesque, 1819, as suppressed in (1)(a) above;
(b) *Ictiorus* Rafinesque, 1820, ruled in (1)(b) above to be an incorrect original spelling of *Ictiobus* Rafinesque, 1820'.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 37, with proposal (4) amended. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 26: Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

No vote was returned by Bayer.

Thompson said that the application provided insufficient evidence to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Amblodon Rafinesque, 1819, *Journal de Physique, de Chimie et d'Histoire Naturelle et des Arts*, Paris, **88**: 421.

bubalus, Catostomus, Rafinesque, 1818, *American Monthly Magazine and Critical Review*, **3**(3): 355.

Ictiobus Rafinesque, 1820, *Ichthyologia Ohiensis, or natural history of the fishes inhabiting the river Ohio and its tributary streams* in *The Western Review and Miscellaneous Magazine*, vol. 2(5), p. 299 [301], June 1820 (here incorrectly spelled *Ictiorus*); spelled *Ictiobus* in November or December 1820 in *Ichthyologia Ohiensis, or natural history of the fishes inhabiting the river Ohio and its tributary streams*, pp. 55, 89.

Ictiorus Rafinesque, 1820, *Ichthyologia Ohiensis, or natural history of the fishes inhabiting the river Ohio and its tributary streams* in *The Western Review and Miscellaneous Magazine*, vol. 2(5), p. 299 [301], June 1820 (here an incorrect original spelling of *Ictiobus*); spelled *Ictiobus* in November or December 1820 in *Ichthyologia Ohiensis, or natural history of the fishes inhabiting the river Ohio and its tributary streams*, pp. 55, 89.

OPINION 1583

Scorpaenichthys marmoratus (Osteichthyes, Scorpaeniformes): Ayres, 1854 to be taken as the author of the specific name

Ruling

(1) It is hereby ruled that the specific name *marmoratus* Ayres, 1854, as published in the binomen *Hemitripteras* [sic] *marmoratus*, has priority over the name *marmoratus* Girard, 1854, as published in the binomen *Scorpaenichthys marmoratus*.

(2) The name *Scorpaenichthys* Girard, 1854 (gender: masculine), type species by monotypy *Scorpaenichthys marmoratus* Girard, 1854 (a junior subjective synonym of *Hemitripteras* [sic] *marmoratus* Ayres, 1854), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *marmoratus* Ayres, 1854 (8 September), as published in the binomen *Hemitripteras* [sic] *marmoratus* (senior subjective synonym of *Scorpaenichthys marmoratus* Girard, 1854 [6 October], the type species of *Scorpaenichthys* Girard, 1854), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2619

An application concerning the authorship and date of the specific name of the North Pacific cabezon *Scorpaenichthys marmoratus* was received from Drs Robert N. Lea (*California Department of Fish and Game, Monterey, California, U.S.A.*) & William N. Eschmeyer (*California Academy of Sciences, San Francisco, California, U.S.A.*) on 14 July 1987. After correspondence the case was published in BZN **45**: 132–134 (June 1988). Notice of the case was sent to appropriate journals. No comments were received.

The specific name *marmoratus* for the species was published independently in 1854 by W.O. Ayres and by C.F. Girard. Ayres' name was published on 8 September in *The Pacific*, a San Francisco journal (in which the California Academy published its meeting reports), and again on 22 September in the *Proceedings of the California Academy of Natural Sciences*, **1**: 3. Girard's *marmoratus* appeared in the *Proceedings of the Academy of Natural Sciences of Philadelphia*, **7**: 132; the actual date of publication is unknown but a copy was received by the American Philosophical Society (Philadelphia) by 6 October, and under Article 21g of the Code this is taken as the formal date of publication.

Because Girard published the generic name *Scorpaenichthys*, with his *marmoratus* as type species of the new genus by monotypy, and because his work may have actually been published before that of Ayres, Drs Lea & Eschmeyer asked that the name *marmoratus* Ayres be suppressed. The application noted (BZN **45**: 133, para. 5) that both Ayres and Girard have been cited in the literature as author of the name *marmoratus*. In recent years Ayres has been given more often.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 133. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 14: Bayer, Bock, Cocks, Corliss, Dupuis, Hahn, Halvorsen, Kabata, Nye, Ride, Starobogatov, Thompson, Trjapitzin, Uéno

Negative votes — 14: Cogger, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Savage, Schuster, Willink.

Thompson commented that he voted for *marmoratus* being taken from Girard, because of the ambiguous date and nature of Ayres' publication. Library research might show that Girard's name had in fact been published first, especially since Ayres' 8 September 1854 report in *The Pacific* was not 'for permanent scientific record' [cf. Article 8a(i) of the Code. This would not apply to the 22 September *Proceedings* paper, and in September 1854 the California Academy directed that its proceedings be published in *The Pacific*]. Voting against the application, Cogger said that suppression of Ayres' name was unwarranted and that attribution of *marmoratus* to him would not cause difficulty. If that had been the case, a better solution would have been to rule that Girard's name had priority.

Since the voting period it has been discovered that in March 1855 Ayres himself attributed *marmoratus* to Girard, but this appears to have been based not on publication but on Girard having presented his paper the earlier (see BZN **45**: 132, paras. 3 and 4; *Proceedings of the California Academy of Natural Sciences*, **1**: 12, 32).

Provisions of the Code (in the present case Articles 21 and 23) may only be set aside by the Commission using its plenary powers, necessitating a two-thirds majority vote. A simple majority is taken as a preliminary vote only, and a two-thirds majority is required in a second vote. In the present case there was no majority in favour of the proposals on BZN **45**: 133, which are therefore rejected; Ayres should thus be taken as the valid author of *marmoratus*.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

marmoratus, Hemitripteras, Ayres, 1854, *The Pacific* (San Francisco), **3**(44): 174.

Scorpaenichthys Girard, 1854, *Proceedings of the Academy of Natural Sciences of Philadelphia*, **7**: 131.

OPINION 1584

Ameiurus Rafinesque, 1820 (Osteichthyes, Siluriformes): *Silurus lividus* Rafinesque, 1820 designated as the type species

Ruling

(1) Under the plenary powers all previous designations of type species for the nominal genus *Ameiurus* Rafinesque, 1820 are hereby set aside and *Silurus lividus* Rafinesque, 1820 is designated as type species.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Ameiurus* Rafinesque, 1820 (gender: masculine), type species by designation under the plenary powers in (1) above *Silurus lividus* Rafinesque, 1820 (a junior subjective synonym of *Pimelodus natalis* Lesueur, 1819);

(b) *Pylodictis* Rafinesque, 1819 (gender: masculine), type species by monotypy *Pylodictis limosus* Rafinesque, 1819 (a junior subjective synonym of *Silurus olivaris* Rafinesque, 1818).

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *natalis* Lesueur, 1819, as published in the binomen *Pimelodus natalis* (senior subjective synonym of *Silurus lividus* Rafinesque, 1820, the type species of *Ameiurus* Rafinesque, 1820);

(b) *olivaris* Rafinesque, 1818, as published in the binomen *Silurus olivaris* (senior subjective synonym of *Pylodictis limosus* Rafinesque, 1819, the type species of *Pylodictis* Rafinesque, 1819).

History of Case 2631

An application for the designation of *Silurus lividus* Rafinesque, 1820 as the type species of *Ameiurus* Rafinesque, 1820 was received from Drs R.M. Bailey (*University of Michigan, Michigan, U.S.A.*) & C.R. Robins (*University of Miami, Florida, U.S.A.*) on 17 November 1987. After correspondence the case was published in BZN **45**: 135–137 (June 1988). Notice of the case was sent to appropriate journals.

The ruling maintains the established use of the name *Ameiurus* (sometimes, incorrectly, *Amiurus*) for the 'bullheads'. As mentioned on BZN **45**: 136, para. 4, lines 1 and 2, since 1877 *Pimelodus natalis* Lesueur, 1819 has been regarded as the valid name of the type species, but in the opinion of the applicants (para. 4 also) authors were wrong in listing Rafinesque's nominal species *Silurus cupreus* as a junior synonym of *P. natalis*. Another of Rafinesque's originally included nominal species, *S. lividus*, is now treated as the junior subjective synonym of *P. natalis*. The desirability of conserving the name *Ameiurus* was first raised with the then Secretary of the Commission (F. Hemming) in 1954 by Dr Carl L. Hubbs, but no formal application was made. In 1955 Dr W.I. Follett noted that *Silurus cupreus* Rafinesque, 1820, previously designated as type species of *Ameiurus*, is 'at best a complex'. *Silurus cupreus* is now considered a synonym of the type species of *Pylodictis* Rafinesque, 1819, and the present ruling avoids *Ameiurus* falling as a junior synonym of *Pylodictis*.

The text of Rafinesque (1820b; the *Ichthyologia Ohiensis*) was serialised before its publication (December 1820) as a book (see Wheeler, BZN **45**: 8). *Ameiurus* (p. 359 in the *Western Review*) dates from July 1820 (see reference below).

References

For *Pylodictis*: **Rafinesque, C.S.** 1819. Prodrome de 70 nouveaux genres d'animaux decouverts dans l'interieur des Etats-Unis d'Amérique, durant l'année 1818. *Journal de Physique, de Chimie et d'Histoire Naturelle, et des Arts*, **88**: 417–429.

For *Ameiurus*: **Rafinesque, C.S.** 1820 (July). Natural History of the Fishes of the Ohio River and its Tributary Streams. Fishes of the River Ohio. *Western Review and Miscellaneous Magazine*, Lexington. **2** (6): 355–363. (Also on p. 65 of *Ichthyologia Ohiensis*, 1820 (November or December). 90 pp. Hunt, Lexington).

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 136–137. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

Thompson considered that insufficient evidence had been presented to decide whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Ameiurus Rafinesque, 1820, *Western Review and Miscellaneous Magazine*, Lexington, **2** (6): 359.

natalis, Pimelodus, Lesueur, 1819, *Mémoires du Muséum d'Histoire naturelle, Paris*, **5**: 154.

olivaris, Silurus, Rafinesque, 1818, *American Monthly Magazine and Critical Review*, New York, **3**(5): 355.

Pylodictis Rafinesque, 1819, *Journal de Physique, de Chimie et d'Histoire Naturelle, et des Arts*, **88**: 422.

OPINION 1585

Ascalabotes gigas Bocage, 1875 (currently *Tarentola gigas*; Reptilia, Squamata): specific name conserved

Ruling

(1) Under the plenary powers the specific name *borneensis* Gray, 1845, as published in the binomen *Tarentola borneensis*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *gigas* Bocage, 1875, as published in the binomen *Ascalabotes gigas*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *borneensis* Gray, 1845, as published in the binomen *Tarentola borneensis* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2621

An application for the conservation of *Ascalabotes gigas* Bocage, 1875, the name of a gecko from the Cape Verde Islands, was received from Dr H.H. Schleich (*c/o Zoologische Staatssammlung, München, Fed. Rep. Germany*) on 30 July 1987. After correspondence the case was published in BZN **45**: 41–42 (March 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 41. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No vote was returned by Martins de Souza.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

borneensis, Tarentola, Gray, 1845, *Catalogue of the specimens of lizards in the collection of the British Museum*, p. 165.

gigas, Ascalabotes, Bocage, 1875, *Jornal de Sciencias Mathematicas, Physicas e Naturaes*, **5**: 108.

OPINION 1586

Euryotis brantsii A. Smith, 1834 (currently *Parotomys brantsii*; Mammalia, Rodentia): specific name conserved

Ruling

(1) Under the plenary powers the specific name *vigil* Thunberg, 1811, as published in the binomen *Arctomys vigil*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *brantsii* A. Smith, 1834, as published in the binomen *Euryotis brantsii*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *vigil* Thunberg, 1811, as published in the binomen *Arctomys vigil* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2605

An application for the conservation of the specific name of *Euryotis brantsii* A. Smith, 1834 was received from Drs L.C. Rookmaaker (*Dokter Guepinlaan 23, NH Ommeren, The Netherlands*) & J. Meester (*University of Natal, Durban, R.S.A.*) on 27 April 1987. After correspondence the case was published in BZN **45**: 43–44 (March 1988). Notice of the case was sent to appropriate journals. A comment from Dr Dieter Kock (*Forschungsinstitut Senckenberg, Frankfurt, Fed. Rep. Germany*) was published in BZN **45**: 223 (September 1988).

Comments in support from Dr Sarah B. George (*Los Angeles County Museum of Natural History, California, U.S.A.*) and from Mr W.F.H. Ansell (*St. Ives, Cornwall, U.K.*) were noted on BZN **45**: 223.

The paper referred to in para. 2, p. 43 as ‘in press’ has now been published:

Rookmaaker, L.C. 1988. The taxonomic importance of C.P. Thunberg's revision of South African mammals (1811). *South African Journal of Science*, **84** (3): 159–161.

Decision of the Commission

On 1 September 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 43. At the close of the voting period on 1 December 1989 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Cogger.

Cogger commented that he would have voted for *brantsii* being given precedence over *vigil*, but suppression of the latter was unwarranted because the synonymy was uncertain (cf. BZN **45**: 223).

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

brantsii, Euryotis, A. Smith, 1834, *South African Quarterly Journal*, **2**: 150.

vigil, Arctomys, Thunberg, 1811, *Mémoires de l'Académie Impériale des Sciences de St. Petersbourg*, **3**: 308.

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INSTRUCTIONS TO AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Recent parts of the *Bulletin* should be consulted as examples.

Title. This should be written in lower case letters and include the names to be conserved. A specific name should be cited in the original binomen, with the current name in parentheses.

Author's name. Full postal address should be given.

Abstract. This will be prepared by the Commission's Secretariat.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals. Text references should give dates and page numbers in parentheses, e.g. 'Daudin (1800, p. 39) described . . . '.

References. These should be given for all authors cited. The title of periodicals should be in full and be underlined; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be underlined and followed by the number of pages, the publisher and the place of publication.

Submission of application. Two copies should be sent to: The Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time that it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in ASCII text on IBM PC format 5.25 inch 360KB (preferable) or 1.2MB, or 3.5 inch 1.4MB floppy disk. Disks will be returned after copying. It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references.

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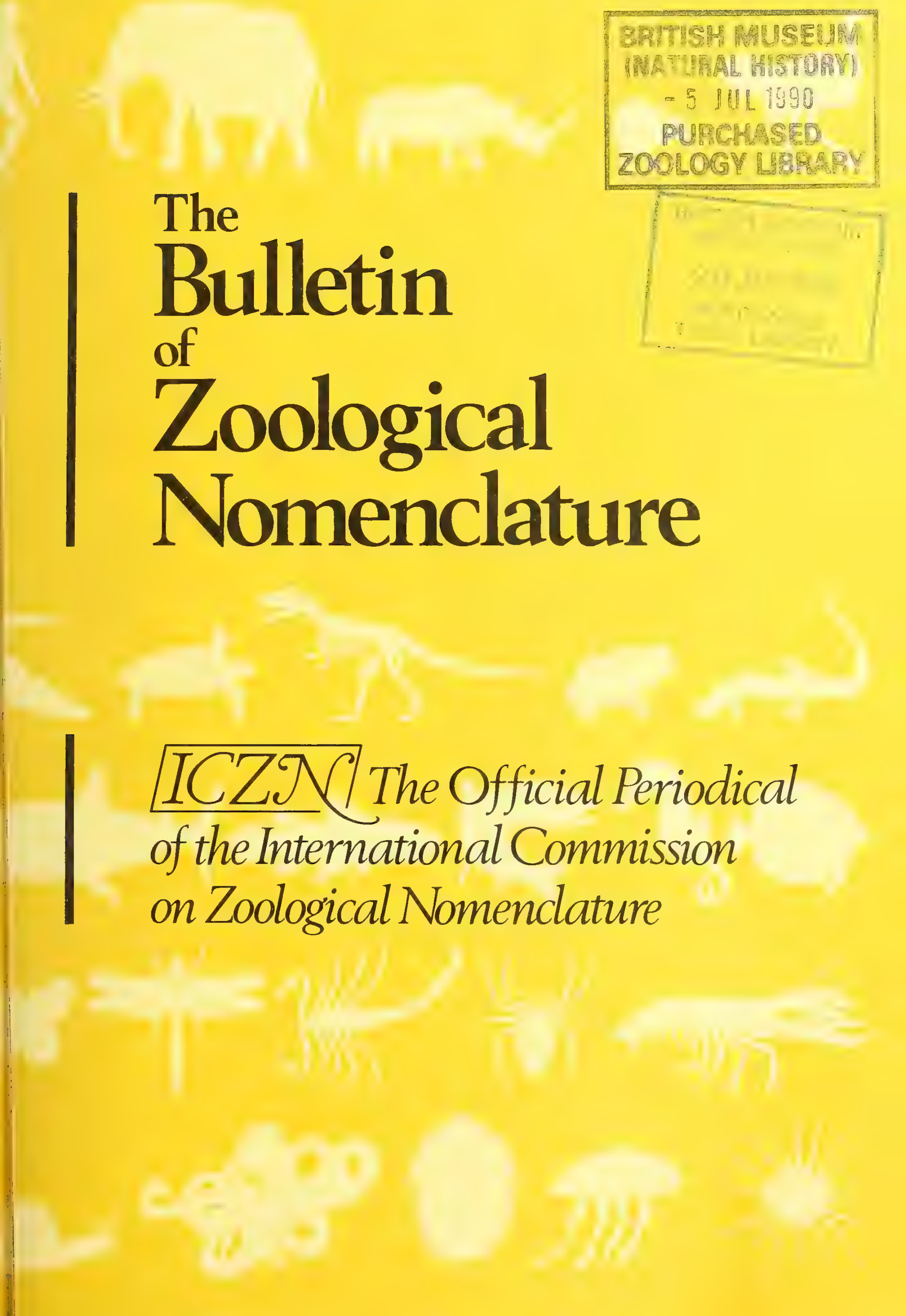

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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Notices

(a) *Invitation to comment.* The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 47, part 1 (published on 27 March 1990):

(1) *Pliocercus* Cope, 1860 (Reptilia, Serpentes): proposed conservation, and *P. elapoides* Cope, 1860: proposed conservation of the specific name. (Case 2752). H.M. Smith, K.L. Williams, V. Wallach & D. Chiszar.

(2) *Cycloceras* McCoy, 1844 (Mollusca, Nautiloidea): proposed designation of *C. laevigatum* McCoy, 1844 as the type species, and proposed designation of a neotype for *C. laevigatum*. (Case 2753). K. Histon.

(3) *Scoparipes* Signoret, 1879 (Insecta, Heteroptera): proposed confirmation of *Cydnus latipes* Westwood, 1837 as the type species. (Case 2754). J.A. Lis.

(4) *Eurymela bicincta* Erichson, 1842 (currently *Eurymeloides bicincta*; Insecta, Homoptera): proposed conservation and designation of a neotype. (Case 2755). M.M. Stevens & M.J. Fletcher.

(5) *Proagoderus* Lansberge, 1883 (Insecta, Coleoptera): proposed conservation. (Case 2756). C. Palestrini.

(6) *Rhinapion* Beguin-Billecocq, 1905 (Insecta, Coleoptera): proposed conservation. (Case 2757). M.A. Alonso-Zarazaga & M. Wanat.

(7) *Buprestis* Linnaeus, 1758 (Insecta, Coleoptera): proposed confirmation of *B. octoguttata* Linnaeus, 1758 as the type species. (Case 2758). G.H. Nelson & W.F. Barr.

(8) *Goniosoma conspersum* Perty, December 1833 (currently *Mitobates conspersus*; Arachnida, Opiliones): proposed precedence over *Mitobates triangulus* Sundevall, April 1833. (Case 2759). A.B. Kury.

(9) *Rhipidocystis* Jaekel, 1900 (Echinodermata, Eocrinoidea): proposed designation of *R. baltica* Jaekel, 1900 as the type species. (Case 2760). S.V. Rozhnov.
(10) *Chrysops atlanticus* Pechuman, 1949 (Insecta, Diptera): proposed precedence over *C. canifrons* Walker, 1848. (Case 2761). J.E. Chainey.
(11) *Griffithides* Portlock, 1843 (Trilobita): proposed conservation of *G. longiceps* Portlock, 1843 as the type species. (Case 2762). G. Hahn.
(12) *Coccinella undecimnotata* Schneider, 1792 (currently *Hippodamia (Semiadalia) umdecimnotata*; Insecta, Coleoptera): proposed conservation of the specific name. (Case 2763). R.D. Pope.
(13) *Acrolocha* Thomson, 1858 (Insecta, Coleoptera): proposed conservation. (Case 2764). M.K. Thayer.
(14) *Phyllodoce* Lamarck, 1818 (Annelida, Polychaeta): proposed conservation. (Case 2765). F. Pleijel.
(15) *Conus fulmen* Reeve, 1843 and *C. berghausi* Michelotti, 1847 (Mollusca, Gastropoda): proposed precedence over *C. modestus* Sowerby, 1833 and *C. demissus* Philippi, 1836 respectively. (Case 2766). A.J. Kohn.
(16) *Drosophila hydei* Sturtevant, 1921 (Insecta, Diptera): proposed conservation of the specific name. (Case 2767). C.R. Vilela & G. Bächli.

(d) *Rulings of the Commission.* Each Opinion, Declaration or Direction published in the *Bulletin* constitutes an official ruling of the International Commission on Zoological Nomenclature, by virtue of the votes recorded, and comes into force on the day of publication of the *Bulletin*.

Call for nominations for new members of the International Commission on Zoological Nomenclature

The following members of the Commission reach the end of their terms of service at the close of the XXIV General Assembly of the International Union of Biological Sciences to be held in Amsterdam in September 1991: Dr H. G. Cogger (Australia, Herpetology); Prof Dr O. Kraus (Fed. Rep. Germany, Arachnology); Dr M. Mroczkowski (Poland, Coleoptera); Dr W. D. L. Ride (Australia, Mammalia). A further vacancy arises from the resignation of Dr G. C. Gruchy (Canada, Ichthyology).

The addresses and specialist fields of the present members of the Commission may be found in the *Bulletin of Zoological Nomenclature*, **47**(1) (March 1990). Under Article 3*b* of the Commission's Constitution a member whose term of service has terminated is not eligible for immediate re-election unless the Council of the Commission has decided to the contrary.

The Commission now invites nominations, by any person or institution, of candidates for membership. Article 2*b* of the Constitution prescribes that:

> 'The members of the Commission shall be eminent scientists, irrespective of nationality, with a distinguished record in any branch of zoology, who are known to have an interest in zoological nomenclature'.

(It should be noted that 'zoology' here includes the applied biological sciences (medicine, agriculture, etc.) which use zoological names).

Nominations made since September 1987 will be reconsidered automatically and need not be repeated. Additional nominations, giving the date of birth, nationality and qualifications (by the criteria mentioned above) of each candidate should be sent by 1 June 1991 to: *The Executive Secretary, International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.*

Official Lists and Indexes of Names and Works in Zoology — Supplement

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895, up to 1985. There are about 9,900 entries.

In the three years 1986–1988, 544 names and three works were added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments to entries in the 1987 volume. This supplement was circulated with Vol. 46, Part 1 of the *Bulletin of Zoological Nomenclature*. Copies can be obtained without charge from either of the following addresses, from which the *Official Lists and Indexes* can be ordered at the price shown (postage included). Payment should accompany orders.

The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £60 or $110
or
The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560, U.S.A. Price $110 ($100 to members of A.A.Z.N.).

The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

Copies may be ordered from the International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or $35 (postage included) or from the American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560 U.S.A. Price $35 ($32 to members of A.A.Z.N.). Payment should accompany orders.

Bully for *Brontosaurus*

A minor victory snatched from the jaws of taxonomic triviality

by Stephen Jay Gould

This article by Dr Gould originally appeared in *Natural History,* February 1990, pp. 16–24, published by the American Museum of Natural History, New York. It is reproduced here by permission. Offprints can be obtained from the Commission Secretariat.

Question: What do Catherine the Great, Attila the Hun, and Bozo the Clown have in common? Answer: They all have the same middle name.

Question: What do San Marino, Tannu Tuva, and Monaco have in common? Answer: They all realized that they could print pretty pieces of perforated paper, call them stamps, and sell them at remarkable prices to philatelists throughout the world (did these items ever bear any relationship to postage or utility? Does anyone own a canceled stamp from Tannu Tuva?). Some differences, however, must be admitted. Although San Marino (a tiny principality within Italy) and Tannu Tuva (a former state adjacent to Mongolia but now annexed to the Soviet Union) may rely on stamps for a significant fraction of their GNP, Monaco, as we all know, has another considerable source of outside income — the casino of Monte Carlo (nurtured by all the hype and elegance of the Grimaldis — Prince Rainier, Grace Kelly, and all that).

So completely do we identify Monaco with Monte Carlo that we can scarcely imagine any other activity, particularly something productive, taking place in this little land of fantasy and fractured finances.

Nonetheless, people are born, work, and die in Monaco. And this tiny nation boasts, among other amenities, a fine station for oceanographic research. This combination of science and hostelry makes Monaco an excellent place for large professional meetings. In 1913, Monaco hosted the International Zoological Congress, the largest of all meetings within my clan. This 1913 gathering adopted the important Article 79, or ‘plenary powers decision’, stating that ‘when stability of nomenclature is threatened in an individual case, the strict application of the Code may under specified conditions be suspended by the International Commission on Zoological Nomenclature’.

Now I will not blame any reader for puzzlement over the last paragraph. The topic — rules for giving scientific names to organisms — is easy enough to infer. But why should we be concerned with such legalistic arcana? Bear with me. We shall detour around the coils of *Boa constrictor,* meet the International Code of Zoological Nomenclature head-on, and finally arrive at a hot issue now generating much passion and acrimony at the heart of our greatest contemporary fad. You may deny all concern for rules of taxonomy, our last domain of active Latin (now that Catholicism has embraced the vernacular), but millions of Americans are now het up about the proper name of *Brontosaurus,* the canonical dinosaur. And you can't grasp the name of the beast without engaging the beastly rules of naming.

Nonprofessionals often bridle at the complex Latin titles used by naturalists as official designations for organisms. Latin is a historical legacy from the foundation of modern taxonomy in the mid-eighteenth century — a precomputer age when

Romespeak was the only language shared by scientists throughout the world. The names may seem cumbersome, now that most of us pass our youthful years before a television set, rather than declaiming *hic-haec-hoc* and *amo-amas-amat*. But the principle is sound. Effective communication demands that organisms have official names, uniformly recognized in all countries, while a world of changing concepts and increasing knowledge requires that rules of naming foster maximal stability and minimal disruption.

New species are discovered every day; old names must often change as we correct past errors and add new information. If every change of concept demanded a redesignation of all names and a reordering of all categories, natural history would devolve into chaos. Our communications would fail as species, the basic units of all our discourse, would have no recognized labels. All past literature would be a tangle of changing designations, and we could not read without a concordance longer than the twenty volumes of the *Oxford English Dictionary*.

The rules for naming animals are codified in the *International Code of Zoological Nomenclature*,* as adopted and continually revised by the International Union of Biological Sciences (plant people have a different code based on similar principles). The latest edition (1985) is bound in bright red and runs to 338 pages. I will not attempt to summarize the contents, but only state the primary goal: to promote maximal stability as new knowledge demands revision.

Consider the most prevalent problem demanding a solution in the service of stability: when a single species has been given two or more names, how do we decide which to validate and which to reject? This common situation can arise for several reasons: two scientists, each unaware of the other's work, may name the same animal; or a single scientist, mistaking a variable species for two or more separate entities, may give more than one name to members of the same species. A simple and commonsensical approach might attempt to resolve all such disputes with a principle of priority — let the oldest name prevail. In practice, such 'obvious' solutions rarely work. The history of taxonomy since Linnaeus has featured three sequential approaches to this classical problem.

1. *Appropriateness*. Modern nomenclature dates from the publication, in 1758, of the tenth edition of Linnaeus's *Systema Naturae*. In principle, Linnaeus endorsed the rule of priority. In practice, he and most of his immediate successors commonly changed names for reasons, often idiosyncratic, of supposed 'appropriateness'. If the literal Latin of an original name ceased to be an accurate descriptor, new names were often given. (For example, a species originally named *floridensis* to denote a restricted geographic domain might be renamed *americanus* if it later spread throughout the country.)

Some unscrupulous taxonomists used appropriateness as a thinly veiled tactic to place their own stamp upon species by raiding rather than by scientific effort. A profession supposedly dedicated to expanding knowledge about things began to founder into a quagmire of arguments about names. In the light of such human foibles, appropriateness could not work as a primary criterion for taxonomic names.

*Copies of the *Code* can be obtained from I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or US$35, or from The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560, U.S.A. Price US$35 (US$32 to members of A.A.Z.N.).

2. *Priority*. The near anarchy of appropriateness provoked a chorus of demands for reform and codification. The British Association for the Advancement of Science finally appointed a committee to formulate a set of official rules for nomenclature. The Strickland Committee, obedient to the age-old principle that periods of permissiveness lead to stretches of law 'n order (before the cycle swings round again), reported in 1842 with a 'strict construction' that must have brought joy to all Robert Borks of the day. Priority in publication shall be absolutely and uncompromisingly enforced. No ifs, ands, buts, quibbles, or exceptions.

This decision may have ended the anarchy of capricious change, but it introduced another impediment, perhaps even worse, based on the exaltation of incompetence. When new species are introduced by respected scientists, in widely read publications with clear descriptions and good illustrations, people take notice and the names pass into general use. But when Ignatz Doofus publishes a new name with a crummy drawing and a few lines of telegraphic and muddled description in the *Proceedings of the Philomathematical Society of Pfennighalbpfennig* (circulation 533), it passes into well-deserved oblivion. Unfortunately, under the Strickland Code of strict priority, Herr Doofus's name, if published first, becomes the official moniker of the species — so long as Doofus didn't break any rule in writing his report. The competence and usefulness of his work has no bearing on the decision. The resultant situation is perversely curious. What other field defines its major activity by the work of the least skilled? As Charles Michener, our greatest taxonomist of bees, once wrote: 'In other sciences the work of incompetents is merely ignored; in taxonomy, because of priority, it is preserved.'

If the Sterling/Doofus ratio were high, priority might pose few problems in practice. Unfortunately, those 'Philomathematical Societies' once formed a veritable army, issuing cannonade after cannonade of publications filled with new names destined for oblivion but technically constituted in correct form. Since every profession has its petty legalists, its boosters of tidiness and procedure over content, natural history sank into a mire of unproductive pedantry that, in Ernst Mayr's words, 'deflected taxonomists from biological research into bibliographic archeology'. Legions of technocrats delighted in searching obscure and forgotten publications for an earlier name that could displace some long-accepted and stable usage. Acrimonious arguments proliferated, for Doofus's inadequate descriptions rarely permitted an unambiguous identification of his earlier name with any well-defined species. Thus, a rule introduced to establish stability against capricious change for appropriateness sowed even greater disruption by forcing the abandonment of accepted names for forgotten predecessors.

3. *Plenary Powers*. The abuses of Herr Doofus and his ilk induced a virtual rebellion among natural historians. A poll of Scandinavian zoologists, taken in 1911, yielded 2 in favor and 120 opposed to strict priority. All intelligent administrators know that the key to a humane and successful bureaucracy lies in creative use of the word *ordinarily*. Strict rules of procedure are ordinarily inviolable — unless a damned good reason for disobedience arises, and then flexibility permits humane and rational exceptions. The Plenary Powers Rule, adopted in Monaco in 1913 to stem the revolt against strict priority, is a codification of the estimable principle of ordinarily. It provided, as quoted early in this essay, that the first designation shall prevail, unless a later name has been so widely accepted that its suppression in favor of a forgotten predecessor would sow confusion and instability.

Such exceptions to strict priority cannot be asserted by individuals but must be officially granted by the International Commission on Zoological Nomenclature, acting under its plenary powers. The procedure is somewhat cumbersome and demands a certain investment of time and paper work, but the plenary powers rule has served us well and has finally achieved stability by locating the fulcrum between strict priority and proper exception. To suppress an earlier name under the plenary powers, a taxonomist must submit a formal application and justification to the International Commission (a body of some thirty professional zoologists). The Commission then publishes the case, invites commentary from taxonomists throughout the world, considers the initial appeal with all elicited support and rebuttal, and makes a decision by majority vote.

The system has worked well, as two cases may illustrate. The protozoan species *Tetrahymena pyriforme* has long been a staple for biological research, particularly on the physiology of single-celled organisms. John Corliss counted more than 1,500 papers published over a twenty-seven-year span — all using this name. However, at least ten technically valid names, entirely forgotten and unused, predate the first publication of *Tetrahymena*. No purpose would be served by resurrecting any of these earlier designations and suppressing the universally accepted *Tetrahymena*. Corliss's petition to the Commission was accepted without protest, and *Tetrahymena* has been officially accepted under the plenary powers.

One of my favorite names recently had a much closer brush with official extinction. The generic names of many animals are the same as their common designation: the gorilla is *Gorilla*; the rat, *Rattus*. But I know only one case of a vernacular name identical with both generic *and* specific parts of the technical Latin. The boa constrictor is (but almost wasn't) *Boa constrictor*, and it would be a damned shame if we lost this lovely consonance. Nevertheless, in 1976, *Boa constrictor* barely survived one of the closest contests ever brought before the Commission, as thirteen members voted to suppress this grand name in favor of *Boa canina*, while fifteen noble nays stood firm and saved the day. The details are numerous and not relevant to this essay. Briefly, in the founding document of 1758, Linnaeus placed nine species in his genus *Boa*, including *canina* and *constrictor*. As later zoologists divided Linnaeus's overly broad concept of *Boa* into several genera, a key question inevitably arose: which of Linnaeus's original species should become the 'type' (or name bearer) of the restricted version of *Boa*, and which should be assigned to other genera. Many professional herpetologists had accepted *canina* as the best name bearer (and assigned *constrictor* to another genus); but a world of both technical and common usage from text books to zoo labels to horror films recognized *Boa constrictor*. The Commission narrowly opted, in a tight squeeze (sorry, I couldn't resist that one), for the name we all know and love. Ernst Mayr, in casting his decisive vote, cited the virtue of stability in validating common usage — the basis for the plenary powers decision in the first place:

> I think here is clearly a case where stability is best served by following usage in the general zoological literature. I have asked numerous zoologists 'what species does the genus *Boa* call to your mind?' and they all said immediately '*constrictor*'. . . . Making *constrictor* the type of *Boa* will remove all ambiguity from the literature.

These debates often strike non-professionals as a bit ridiculous — a sign, perhaps, that taxonomy is more wordplay than science. After all, science studies the external world (through the dark glass of our prejudices and perceptions to be sure). Questions of first publication versus common usage have nothing to do with the animals 'out there', but only with human conventions for naming. But this is the point, not the problem. These are debates about names, not things — and the arbitrary criteria of human decision making, not boundaries imposed by the external world, apply to our resolutions. The aim of these debates (although not always, alas, the outcome) is to cut through the verbiage, reach a stable and practical decision, and move on to the world of things.

Which leads, via a segue of some admitted roughness, back to philately. The United States government, jumping on the greatest bandwagon since the hula hoop, has just issued four striking stamps bearing pictures of dinosaurs — and labeled, *Tyrannosaurus, Stegosaurus, Pteranodon,* and *Brontosaurus.*

Thrusting itself, with all the zeal of a convert, into the heart of commercial hype, the U.S. Post Office seems committed to shedding its image for stodginess in one fell, crass swoop. Its small brochure, announcing October as 'national stamp collecting month', manages to sponsor a contest, establish a tie-in both with T-shirts and a videocassette for *The Land Before Time,* and offer a dinosaur 'discovery kit' (a $9.95 value for just $3.95; 'valid while supplies last. Better hurry!'). You will, in this context, probably not be surprised to learn that the stamps were officially launched on 1 October 1989, in Orlando, Florida, at Disney World.

Amidst this maelstrom of marketing, the Post Office has also engendered quite a brouhaha about the supposed subject of one stamp — a debate given such prominence in the press that much of the public (at least judging from my voluminous mail) now thinks that an issue of great scientific importance has been raised to the detriment and shame of an institution otherwise making a worthy step to modernity. (We must leave this question for another time, but I confess great uneasiness about such approbation. I appreciate the argument that T-shirts and videos heighten awareness and expose aspects of science to millions of kids otherwise unreached. I understand why many will accept the forceful spigot of hype, accompanied by the watering-down of content — all in the interest of extending contact. But the argument works only if, having made contact, we can then woo these kids to a deeper intellectual interest and commitment. Unfortunately, we are often all too ready to compromise. We hear the blandishments: dumb it down; hype it up. But go too far and there is no turning back; you lose your own soul by dripping degrees. The space for wooing disappears down the maw of commercialism. Too many wise people, from Shakespeare to my grandmother, have said that dignity is the only bit of our being that cannot be put up for sale.)

This growing controversy has even reached the august editorial pages of the *New York Times* (11 October 1989), and their description serves as a fine epitome of the supposed mess:

> The Postal Service has taken heavy flak for mislabeling its new 25-cent dinosaur stamp, a drawing of a pair of dinosaurs captioned *'Brontosaurus'*. Furious purists point out that the 'brontosaurus' is now properly called 'apatosaurus'. They accuse the stamp's authors of fostering scientific illiteracy, and want the stamps recalled.

Brontosaurus versus *Apatosaurus*. Which is right? How important is this issue? How does it rank amidst a host of other controversies surrounding this and other dinosaurs: what head belongs on this dinosaur (whether it be called *Brontosaurus* or *Apatosaurus*);

were these large dinosaurs warmblooded; why did they become extinct? The press often does a good job of reporting the basic facts of a dispute, but fails miserably in supplying the context that would allow a judgment about importance. I have tried, in the first part of this essay, to supply the necessary context for grasping *Brontosaurus* versus *Apatosaurus*. I regret to report, and shall now document, that the issue could hardly be more trivial — for the dispute is only about names, not about things. The empirical question was settled to everyone's satisfaction in 1903. To understand the argument about names, we must know the rules of taxonomy and something about the history of debate on the principle of priority. But the exposure of context for *Brontosaurus* versus *Apatosaurus* does provide an interesting story in itself and does raise important issues about the public presentation of science — and thus do I hope to snatch victory (or at least interest) from the jaws of defeat (or triviality).

Brontosaurus versus *Apatosaurus* is a direct legacy of the most celebrated feud in the history of vertebrate paleontology — Cope versus Marsh. As E.D. Cope and O.C. Marsh vied for the glory of finding spectacular dinosaurs and mammals in the American West, they fell into a pattern of rush and superficiality born of their intense competition and mutual dislike. Both wanted to bag as many names as possible, so they published too quickly, often with inadequate descriptions, careless study, and poor illustrations. In this unseemly rush, they frequently gave names to fragmentary material that could not be well characterized and sometimes described the same creature twice by failing to make proper distinctions among the fragments. (For a good history of this issue, see D.S. Berman and J.S. McIntosh, 'Skull and Relationships of the Upper Jurassic Sauropod *Apatosaurus*', *Bulletin of the Carnegie Museum of Natural History,* no. 8, 1978. These authors point out that both Cope and Marsh often described and officially named a species when only a few bones had been excavated and most of the skeleton remained in the ground.)

In 1877, in a typically rushed note, O.C. Marsh named and described *Apatosaurus ajax* in two paragraphs without illustrations ('Notice of New Dinosaurian Reptiles from the Jurassic Formation', *American Journal of Science,* vol. 14, 1877, pp. 514–16). Although he noted that this 'gigantic dinosaur . . . is represented in the Yale Museum by a nearly complete skeleton in excellent preservation', Marsh described only the vertebral column. In 1879, he published another page of information and presented the first sketchy illustrations — of pelvis, shoulder blade, and a few vertebrae ('Principal Characters of American Jurassic Dinosaurs, Part II', *American Journal of Science,* vol. 17, 1879, pp. 86–92). He also took this opportunity to pour some vitriol upon Mr Cope, claiming that Cope had misnamed and misdescribed several forms in his haste. 'Conclusions based on such work', Marsh asserts, 'will naturally be received with distrust by anatomists.'

In another 1879 article, Marsh introduced the genus *Brontosaurus,* with two paragraphs (even shorter than those initially devoted to *Apatosaurus*), no illustrations, and just a few comments on the pelvis and vertebrae. He did estimate the length of his new beast at seventy to eighty feet, in comparison with some fifty feet for *Apatosaurus* ('Notice of New Jurassic Reptiles', *American Journal of Science,* vol. 18, 1879, pp. 501–5).

Marsh considered *Apatosaurus* and *Brontosaurus* as distinct but closely related genera within the larger family of sauropod dinosaurs. But *Brontosaurus* soon became everyone's typical sauropod — indeed *the* canonical herbivorous dinosaur of popular consciousness, from the Sinclair logo to Walt Disney's *Fantasia* — for a simple and obvious reason. Marsh's *Brontosaurus* skeleton, from the most famous of all dinosaur localities at Como Bluff quarry 10, Wyoming, remains to this day 'one of the most complete sauropod skeletons ever found' (quoted from Berman and McIntosh, cited previously). Marsh mounted the skeleton at Yale and often published his spectacular reconstruction of the entire animal. (*Apatosaurus,* meanwhile, remained a pelvis and some vertebrae.) In his great summary work, *The Dinosaurs of North America*, Marsh wrote (1896): 'The best-known genus of the Atlantosauridae is *Brontosaurus*, described by the writer in 1879, the type specimen being a nearly entire skeleton, by far the most complete of any of the Sauropoda yet discovered.' *Brontosaurus* also became the source of the old stereotype, now so strongly challenged, of slow, stupid, lumbering dinosaurs. Marsh wrote in 1883, when presenting his full reconstruction of *Brontosaurus* for the first time:

> A careful estimate of the size of *Brontosaurus*, as here restored, shows that when living the animal must have weighed more than twenty tons. The very small head and brain, and slender neural cord, indicate a stupid, slow-moving reptile. The beast was wholly without offensive or defensive weapons, or dermal armature. In habits, *Brontosaurus* was more or less amphibious, and its food was probably aquatic plants or other succulent vegetation.

In 1903, Elmer Riggs of the Field Museum in Chicago restudied Marsh's sauropods. Paleontologists had realized by then that Marsh had been overgenerous in his designation of species (a 'splitter' in our jargon), and that many of his names would have to be consolidated. When Riggs restudied *Apatosaurus* and *Brontosaurus*, he recognized them as two versions of the same creature, with *Apatosaurus* as a more juvenile specimen. No big deal; it happens all the time. Riggs rolled the two genera into one in a single paragraph:

> The genus *Brontosaurus* was based chiefly upon the structure of the scapula and the presence of five vertebrae in the sacrum. After examining the type specimens of these genera, and making a careful study of the unusually well-preserved specimen described in this paper, the writer is convinced that the Apatosaur specimen is merely a young animal of the form represented in the adult by the Brontosaur specimen. . . . In view of these facts the two genera may be regarded as synonymous. As the term '*Apatosaurus*' has priority, '*Brontosaurus*' will be regarded as a synonym.

In 1903, ten years before the plenary powers decision, strict priority ruled in zoological nomenclature. Thus, Riggs had no choice but to sink the later name, *Brontosaurus*, once he had decided that Marsh's earlier name, *Apatosaurus*, represented the same animal. But then I rather doubt that Riggs would have gone to bat for *Brontosaurus* even if he could have submitted a case on its behalf. After all, *Brontosaurus* was not yet an icon of pop culture in 1903 — no Sinclair logo, no Alley-Oop, no *Fantasia,* no *Land Before Time*. Both names were generally unknown, and Riggs probably didn't lament the demise of *Brontosaurus*.

No one has ever seriously challenged Riggs's conclusion, and professionals have always accepted his synonymy. But Publication 82 of the 'Geological Series of the Field Columbian Museum' for 1903 — the reference for Riggs's article — never gained much popular currency. The name *Brontosaurus*, still affixed to skeletons in museums throughout the world, still perpetuated in countless popular and semi-technical books about nature, never lost its luster, despite its technical limbo. Anyone could have applied to the Commission for suppression of *Apatosaurus* under the plenary powers in recognition of the widespread popularity and stability of *Brontosaurus*. I suspect that such an application would have succeeded. But no one bothered, and a good name remains in limbo. (I also wish that someone had fought for the suppression of the unattractive and inappropriate name *Hyracotherium* in favor of the lovely but later *Eohippus*, also coined by Marsh. But again, no one did.)

I'm afraid there's not much more to this story — not nearly the issue hyped by your newspapers as the great stamp flap. No argument of fact arises at all, just a question of names, settled in 1903, but never transferred to a general culture that continues to learn and favor the technically invalid name *Brontosaurus*. But the story does illustrate something troubling about the presentation of science in popular media. The world of *USA Today* is a place of instant fact and no analysis. Hundreds of bits come at us in pieces never lasting more than a few seconds — for the dumbdowners tell us that average Americans can't assimilate anything more complex or pay attention to anything longer.

This oddly 'democratic' procedure makes all bits equal — the cat who fell off a roof in Topeka (and lived) gets the same space as the Soviet withdrawal from Afghanistan. Democracy is a magnificent system for human rights and morality in general, but it just doesn't apply to the evaluation of information. We are bombarded with too much in our inordinately complex world; if we cannot sort the trivial from the profound, we are lost in terminal overload. The criteria for sorting must involve context and theory — the larger perspective that a good education provides.

In the current dinosaur craze without context, all bits are mined for their superficial news value as items in themselves — a lamentable tendency abetted by the 'trivial pursuits' one-upmanship that confers status on people who know (and flaunt) the most bits. (If you play this dangerous game in real life, remember that ignorance of context is the surest mark of a phony. If you approach me in wild lament, claiming that our postal service has mocked the deepest truth of paleontology, I will know that you have only skimmed the surface of my field.)

Consider the four items mentioned earlier in this essay. They are often presented in *USA Today* style as equal factoids. But with a context to sort the trivial from the profound, we may recognize some as statements about words, others as entries to the most general questions we can ask about the history of life. *Apatosaurus* versus *Brontosaurus* is a legalistic quibble about words and rules of naming. Leave the Post Office alone. They take enough flak (much justified of course) as it is. The proper head for *Apatosaurus* is an interesting empirical issue, but of little moment beyond the sauropods. Marsh found no skull associated with either his *Apatosaurus* or his *Brontosaurus* skeleton. He guessed wrong and mounted the head of another sauropod genus called *Camarosaurus*. *Apatosaurus* actually bore a head much more like that of the different genus *Diplodocus*. The head issue (*Camarosaurus*-like versus *Diplodocus*-like) and the name issue (*Apatosaurus* versus *Brontosaurus*) are entirely separate questions, although they have been confused in the press.

The question of warmbloodedness (quite unresolved at the moment) is more general still, as it affects our basic concepts of dinosaur physiology and efficiency. The issue of extinction is the broadest of all — for basic patterns of life's history are set by differential survival of groups through episodes of mass dying. We are here today, arguing about empty issues like *Apatosaurus* versus *Brontosaurus*, because mammals got through the great Cretaceous extinction, while dinosaurs did not.

I hate to be a shill for the Post Office, but I think that they made the right decision this time. Responding to the great *Apatosaurus* flap, Postal Bulletin Number 21744 proclaimed: 'Although now recognized by the scientific community as *Apatosaurus*, the name *Brontosaurus* was used for the stamp because it is more familiar to the general population. Similarly, the term dinosaur has been used generically to describe all the animals, even though the *Pteranodon* was a flying reptile'. Touché and right on; no one bitched about *Pteranodon*, and that's a real error. Moreover, members of the American Museum and readers of this magazine have no right to upbraid the Post Office. Page twenty-nine of the November 1989 *Natural History* features an ad for dinosaur neckties sold by the American Museum shop. The list includes *Pteranodon, Dimetrodon* (a mammalian ancestor, not a dinosaur), and '*Brontosaurus*' proudly so called.

The Post Office has been more right than the complainers, for Uncle Sam has worked in the spirit of the plenary powers rule. Names fixed in popular usage may be validated even if older designations have technical priority. But now . . . Oh Lord, why didn't I see it before! Now I suddenly grasp what this is all about! It's a plot, a dastardly plot sponsored by the apatophiles — that secret society long dedicated to gaining support for Marsh's original name against a potential appeal to the plenary powers. They never had a prayer before. Whatever noise they made, whatever assassinations they attempted, they could never get anyone to pay attention, never disturb the tranquillity and general acceptance of *Brontosaurus*. But now that the Post Office officially adopted *Brontosaurus*, they have found their opening. Now enough people know about *Apatosaurus* for the first time. Now an appeal to the plenary powers would not lead to the validation of *Brontosaurus*, for *Apatosaurus* has gained precious currency. They have won; we brontophiles have been defeated.

Apatosaurus means 'deceptive lizard'; *Brontosaurus* means 'thunder lizard' — a far, far better name (but appropriateness, alas, as we have seen, counts for nothing). They have deceived us; we brontophiles have been outmaneuvered. Oh well, graciousness in defeat before all (every bit as important as dignity, if not an aspect thereof). I retreat, not with a bang of thunder, but with a whimper of hope that rectification may someday arise from the ashes of my stamp album.

Stephen Jay Gould teaches biology, geology, and the history of science at Harvard University.

Family-group names in fishes: grammatical nicety or pragmatism? A plea for stability

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Although family names are essential to the elaboration of a hierarchical system of classification such as is required by systematists, they serve other important functions. Because family groupings provide a more readily understood unit of classification to non-systematists than those above or below family level they are widely used, giving a group name of manageable comprehension. In addition, retrieval systems, whether in current awareness services or library indexes and in both manual and computerized forms, and biological recording systems depend heavily on groupings at family level. This level is the base line on which most of these systems operate. Their importance cannot be overestimated, nor can the need to stabilize usage in acceptably clear forms.

Family names have an important role in formal communication in that papers of a scientific nature usually include within the title or abstract both family and ordinal names (a practice on which abstracting services and retrieval systems depend). Both informal writing and oral communication also rely heavily on family names and their use provides a framework within which the reader or listener can relate the information to known parameters. Biologists who are not primarily taxonomists, for example fishery workers, environmental archaeologists, and ecologists, employ family names in both formal and informal contexts. Because family names usually have a greater stability once properly established they occupy an important role in communication within the biological sciences. It is therefore desirable that they are stable in form and in usage; as an example, this was recognized by the Commission 32 years ago when (in Opinion 500) the name PIERIDAE was accepted for the 'White' butterflies, rather than the grammatically correct PIERIDIDAE.

In fishes, after a long period of relative uniformity of usage, uncertainty about the form of some family names has been created by Steyskal's (1980) claim that several widely used family names are not grammatically correct in form. As a result some ichthyologists have adopted the form recommended by Steyskal, other have deliberately ignored his recommendations. Some of the former, after many years of using the 'incorrect' form, are now advocating the 'correct' usage in non-taxonomic fields with the zeal of the newly-converted, which causes confusion.

Two cases in which maintenance of a widely used family name of 'incorrect' form has been defended by an authority in the group — COBITIDAE rather than COBITIDIDAE, and LIPARIDAE rather than LIPARIDIDAE — have recently come before the Commission (BZN **43**: 360–362, **45**: 178–179; and BZN **45**: 130–131). Others will undoubtedly follow in time.

Other examples involve groups of fishes which are frequently referred to in the literature for various reasons. Thus, the anchovy family name ENGRAULIDAE (or ENGRAULIDIDAE, as 'corrected' by Steyskal) for a group of very important commercial fishes is frequently used in fisheries literature. The sleeper family ELEOTRIDAE (or

ELEOTRIDIDAE) is extremely speciose in tropical shallow seas and freshwaters and features frequently in literature on coastal ecology, as does the family of butterfishes, PHOLIDAE (or PHOLIDIDAE) in northern temperate and Arctic seas. Both the sting ray and the eagle ray families, DASYATIDAE and MYLIOBATIDAE (or DASYATIDIDAE and MYLIOBATIDIDAE) have minimal importance in fisheries but feature in the medical literature on account of the toxins associated with envenomed tail spines. Other fishes feature in the literature on account of their interesting symbiotic behaviour or evolutionary interest, e.g. the shark sucker family ECHENEIDAE (or ECHENEIDIDAE) and the pearl fishes CARAPIDAE (or CARAPODIDAE), while the Australian lung-fish, *Neoceratodus forsteri*, is usually referred by authors to the family CERATODIDAE (but 'should' be CERATODONTIDAE).

It will be apparent that many of the above examples of family names in their grammatically correct forms (in parentheses) are more complicated and thus more liable to error in transcription, but, more importantly, become almost unpronounceable if spoken either in formal usage or in adjectival form. This is a serious disadvantage when these names are in widespread use by non-taxonomists.

Rather than adopting the grammatically correct forms of family names (vide Skeyskal, 1980) without consideration of the consequences, it is preferable to analyse past usage of these names. In another nomenclatural context Stearn (1985) refers to usage resulting from 'the consent of the learned' which he defines as fairly consistent usage by nineteenth-century botanists of standing. In the present case involving family names which were rarely stabilized in the nineteenth century, I propose citing authors of authoritative world surveys of recent fishes with the addition of the list of names of North American fishes (Robins et al., 1980) which is a critical work compiled by a committee of specialists. These authorities are Günther (1860, 1861, 1868, 1870), Jordan (1923), Berg (1940), Norman (1966), Greenwood et al. (1966), Lindberg (1971) and Nelson (1976). (Norman's list is confined to marine fishes. The later edition of Nelson (1984) followed Steyskal's paper and is not quoted.) I have selected these authors as forming 'the consent of the learned' because in listing recognized families they have had to make a critical choice in spelling the name.

The ten family names cited above (including the two already referred to the Commission) are listed below in alphabetical order with an indication of the form in which they were employed by these authors. Where one of the authors is not cited he made no reference to the family, or used another family name.

CARAPIDAE — Jordan (1923), Norman (1966), Greenwood et al. (1966), Lindberg (1971), Nelson (1976), Robins et al. (1980). CARAPODIDAE — Steyskal (1980).

CERATODIDAE — Berg (1940), Lindberg (1971), Nelson (1976). CERATODONTIDAE — Steyskal (1980), also used by Jordan (1923).

COBITIDAE — Jordan (1923), Berg (1940), Greenwood et al. (1966), Lindberg (1971), Nelson (1976), Robins et al. (1980). COBITIDIDAE — Steyskal (1980), used in the form COBITIDINA by Günther (1868). COBITIDAE was ruled to be the correct spelling in Opinion 1500 (June 1988, BZN **45**: 178–179).

DASYATIDAE — Jordan (1923), Norman (1966), Lindberg (1971), Nelson (1976), Robins et al. (1980). DASYATIDIDAE — Steyskal (1980).

ECHENEIDAE — Jordan (1923), Berg (1940), Greenwood et al. (1966), Lindberg (1971), Nelson (1976), Robins et al. (1980). ECHENEIDIDAE — Steyskal (1980), also used by Norman (1966).

ELEOTRIDAE — Jordan (1923), Berg (1940), Norman (1966), Greenwood et al. (1966), Lindberg (1971), Nelson (1976), Robins et al. (1980). ELEOTRIDIDAE — Steyskal (1980).
ENGRAULIDAE — Jordan (1923), Berg (1940), Greenwood et al. (1966) in synonymy, Norman (1966, as ENGRAULINAE), Lindberg (1971), Nelson (1976), Robins et al. (1980). Used in the form ENGRAULINA by Günther (1868). ENGRAULIDIDAE — Steyskal (1980).
LIPARIDAE — Jordan (1923), Greenwood et al. (1966) in synonymy, Lindberg (1971). Used in the form LIPARIDINA by Günther (1861). LIPARIDIDAE — Steyskal (1980).
MYLIOBATIDAE — Günther (1870), Jordan (1923), Berg (1940), Norman (1966), Lindberg (1971), Nelson (1976), Robins et al. (1980). MYLIOBATIDIDAE — Steyskal (1980).
PHOLIDAE — Jordan (1923), Berg (1940), Robins et al. (1980). PHOLIDIDAE — Steyskal (1980), as used by Norman (1966), Greenwood et al. (1966), Lindberg (1971), Nelson (1976).

It can be seen from this that in most cases these authors have employed what are said to be 'incorrect' names and as these are works of reference, widely cited when current, the usage of all (except for PHOLIDAE) is heavily in favour of these names.

Steyskal's proposals were critically reviewed by Robins et al. (1980) in their listing of North American fishes and the majority were rejected in their list. In the introduction to their check-list they 'deplored' the imposition of allegedly correct endings to some family names overturning well established and familiar names. Kottelat (1984, p. 227), Cocks (BZN **45**: 179), Wheeler (BZN **45**:292) and Mayr (BZN **46**: 45) have opposed changes in COBITIDAE and/or LIPARIDAE on the grounds of supposed correctness of grammar. These comments reinforce the proposal relating to Article 29b(i) in the Minutes of the Section of Zoological Nomenclature, IUBS Canberra (October 1988, BZN **46**: 16) that in the construction of family-group names in certain circumstances the stem should be elided so that the name had the form -IDAE rather than -IDIDAE. This note concluded that ichthyologists would favour such a change.

The confusion caused by Steyskal's proposals could be resolved by application to the Commission for rulings on each name, as has been done for COBITIDAE and LIPARIDAE. However, this would be a time-consuming business and not cost-effective for either ichthyologists or the staff of the Commission, and the lapse of time while cases were prepared, amended and published and before a ruling could be given would cause a great deal of uncertainty in use. The decision as to which, if any, of Steyskal's proposed amendments to 71 currently used family-group names could be adopted without offending accepted usage (and particularly without producing infelicitous adjectival nomenclature) cannot be undertaken piecemeal and calls for the urgent establishment of an international committee of specialists to advise on fish nomenclature.

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Case 2630

Helix (*Helicigona*) *barbata* Férussac, 1832 (currently *Lindholmiola barbata*; Mollusca, Gastropoda): proposed confirmation of lectotype designation

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Abstract. The purpose of this application is to conserve the name *barbata* Férussac, 1832 in its accustomed usage for a S.E. European species of pulmonate gastropod. The nomenclature of the nominal taxa *Helix* (*Helicigona*) *lens* Férussac, 1832 and *H.* (*H.*) *barbata* Férussac, 1832 has recently been reviewed by Gittenberger & Groh (1986), but unfortunately their lectotype selection for *barbata* is not valid under the Code.

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1. The names *Helix* (*Helicigona*) *lens* and *H.* (*H.*) *barbata* were both nomina nuda when published by Férussac in 1821. Gittenberger & Groh (1986, p. 222), however, consider *barbata* as available from 1821. As a completely different interpretation of the names results from Férussac's 1821 and 1832 publications, the subject of the availability of *H.* (*H.*) *barbata* has to be addressed first.

2. The full text of Férussac 1821 (1821a, p. 37; 1821b, p. 41) reads:
'NO. 152. BARBATA nobis.
α) Minus depressa.
β) Brunnea.
Habit. Zante; Comm. le Cte MERCATI. Scio, Sestos, OLIVIER.
α) sur les rochers élevés près la Sude, OLIVIER.
β) L'île de Zante.
No. 153. LENS, nobis
Habit. L'île de Ténérife, MAUGÉ.'

3. Gittenberger & Groh (1986) took the diagnoses of α and β as sufficient to validate the nominal taxon *Helix* (*Helicigona*) *barbata*. However, when these diagnoses are related to the list of localities, it is clear that only two of the three groups within the species have been diagnosed. The most logical interpretation of the text is that the undiagnosed group of specimens from 'Zante' and 'Scio, Sestos' is the typical group, with α and β as variants. The usage of Greek lower case letters for infra-specific categories ('varieties') was common in the period: the content of the diagnoses implies a variation from the norm which is not specified; 'α' is less depressed than what? 'β' is coloured brown, but what is the colour of the others? Obviously the variants do not define or describe the 'typical' form of the nominal species *barbata*; this name is therefore not available from this work.

4. The species names *lens* and *barbata* became available in 1832 with the publication of figures on Plate 66* in the 23rd livraison of Férussac's *Histoire Naturelle* .... (1832b), for which an explanation was issued simultaneously (1832a). These bibliographic details are according to Kennard (1942, p. 110). It should be noted here that the 1821

and 1832 works were written by J.B.L. d'A. de Férussac and published posthumously by his son, A.É.J.P.J.F. d'A. de Férussac. A study of the type series (dating from 1821) of *Helix lens* and *Helix barbata* in the Laboratoire Biologique des Invertébrés Marins et Malacologie, Paris, reveals that the meaning of the species names was interchanged between Férussac 1821 and 1832. The type series are annotated below, as Gittenberger & Groh's description contains several errors regarding the status of the specimens. The nomenclature used by Férussac in 1821 and 1832 and by Gittenberger & Groh in 1986 referring to the type specimens is tabulated for easy reference:

Notes on the type series	Férussac, 1821; a, p. 37; b, p. 41 [all nomina nuda]	Férussac, 1832; a, p. ij; b, Pl.66*	Gittenberger & Groh, 1986 (LT = lectotype designation)
1	*barbata*	*lens* Fig.2	*Lindholmiola lens* LT Fig.2
2	*barbata* α	—	—
3	*barbata* β	—	*Lindholmiola lens*
4	—	*barbata* var. α Fig.3	*Lindholmiola barbata* LT Fig.3
5	*lens*	*barbata* Fig.4	*Canariella fortunata* (Shuttleworth, 1852)

Notes on the type series

1. 5 specimens labelled '*Helicigona Barbata* nos. 1,2,3 du Cte. Mercaty Zante'; 4 specimens labelled '*Helix barbata* Fér. de Sestos par M. Olivier 1819'. All are currently known as *Lindholmiola lens* (Férussac, 1832), a species known to live in Greece.
2. No specimens could be identified amongst several lots of *Lindholmiola lens*, which exist additionally to the type series mentioned under 1 above, in the Férussac collection.
3. 4 specimens labelled '*Helicigona barbata* var β) Brunnea. No. 4 Cte Mercaty. Zante'. These are old shells of *Lindholmiola lens* stained by brown loam!
4. No material was found in the Férussac collection. This is obviously not the variety α of 1821, which is said to be less depressed than the 'typical' form (cf. note 1), while Fig. 3 shows a more depressed shell.
5. 2 specimens from Tenerife, labelled *Helicigona lens*, collected by Maugé. These are *Helix fortunata* Shuttleworth, 1852 (p. 141; currently in *Canariella*), known to exist in Tenerife.

5. The designation by Gittenberger & Groh of Pl. 66*, Fig. 2 as representing the lectotype of *Helix lens* Férussac, 1832 is valid, but their designation of Fig. 3 for *Helix barbata* is not, because it was referred to by Férussac (1832) as a variant (Article 72b(i) of the Code). Only the specimen on Fig. 4 would be available as a lectotype for *Helix barbata*. Such a designation would have the unfortunate effect of rendering *Canariella fortunata* (Shuttleworth, 1852) a junior objective synonym of *H. barbata*, while a new name would have to be introduced for the species represented by Fig. 3 (E. Gittenberger pers. comm.).

6. Gittenberger & Groh's lectotype designation for *H. barbata* would not be appropriate even under the assumption that the name is available from 1821. The material on which *H.* (*H.*) *barbata* Férussac, 1821 was apparently based (Note 1 above) is referred

to *lens* by Férussac (1832) and by Gittenberger & Groh (1986). To choose a lectotype for *barbata* from this material would give this name a meaning contrary to its established use (Gittenberger & Groh, 1986), render *H.* (*H.*) *lens* a junior objective synonym and would again leave the species represented in Fig. 3 without its accustomed name *barbata*, or indeed any name. Thus, in order to achieve nomenclatural stability in the manner in which Gittenberger & Groh intended, it is necessary to use the plenary powers to confirm their designation of the 'var. α' specimen on Pl. 66*, fig. 3 as the lectotype of *H.* (*H.*) *barbata* Férussac, 1832.

7. The principal purpose of this application is the confirmation of Gittenberger & Groh's lectotype designation for *barbata*, so removing any threat to the name *lens*, which has been accepted in the sense of Férussac's Pl. 66*, fig. 2 since the publication of this figure in 1832 (see Gittenberger & Groh, 1986). The nominal species *Helix* (*Helicigona*) *lens* is the type species of the genus *Lindholmiola* Hesse, 1931 (p. 50) by original designation. The proposals also have the effect of maintaining the names *Lindholmiola barbata* and *Canariella fortunata* in their accustomed sense.

8. The International Commission on Zoological Nomenclature is accordingly asked:
(1) to confirm that the name *Helix* (*Helicigona*) *barbata* is available from Férussac (1832) and not from Férussac (1821);
(2) to use its plenary powers to confirm the designation by Gittenberger & Groh (1986) of the specimen figured by Férussac (1832, Pl. 66*, fig. 3) as the lectotype of the nominal species *Helix* (*Helicigona*) *barbata* Férussac, 1832;
(3) to place on the Official List of Generic Names in Zoology the name *Lindholmiola* Hesse, 1931 (gender: feminine), type species by original designation *Helix* (*Helicigona*) *lens* Férussac, 1832;
(4) to place the following names on the Official List of Specific Names in Zoology:
    (a) *barbata* Férussac, 1832 as published in the combination *Helix* (*Helicigona*) *barbata* and as interpreted by the lectotype confirmed in (2) above;
    (b) *lens* Férussac, 1832 as published in the combination *Helix* (*Helicigona*) *lens* (specific name of the type species of *Lindholmiola* Hesse, 1931).

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Case 2699

RISSOOIDEA (or RISSOACEA) Gray, 1847 (Mollusca, Gastropoda): proposed precedence over TRUNCATELLOIDEA (or TRUNCATELLACEA) Gray, 1840

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Abstract. The purpose of this application is to conserve the family-group name RISSOOIDEA Gray, 1847 for one of the largest superfamilies in the Mollusca. The name is threatened by the senior family-group name TRUNCATELLOIDEA Gray, 1840, over which it is proposed it be given precedence.

1. When Gray introduced the family-group names TRUNCATELLIDAE (1840, p. 117; based on *Truncatella* Risso, 1826) and RISSOIDAE (1847, p. 152; as subfamily RISSOAINA, based on *Rissoa* Desmarest, 1814), he did not consider the taxa to be closely related. He allied the rissoids with the melaniids, whereas he grouped the truncatellids with the pyramidellids and acteonids (1847, pp. 152, 159). Other authors of that period connected the truncatellids with terrestrial operculates such as the helicinids and cyclophorids (Binney, 1851, p. 351; H. & A. Adams, 1855, p. 273). Later, Bland & Binney (1872), Tryon (1883, p. 277) and Vayssière (1886) established the relationship of truncatellids with rissoids. Thiele (1929, p. 136) was the first to recognize RISSOACEA as a superfamily, and he was followed by Wenz (1939, p. 554). Virtually all subsequent authors have recognized the superfamily (Davis, 1979, p. 7). Thiele (p. 151) placed *Truncatella* Risso, 1826 in the TRUNCATELLINAE in the HYDROBIIDAE Troschel, 1857 (p. 106), whereas Wenz (p. 581) placed it directly in the TRUNCATELLIDAE. Baker (1956, p. 29) was the first to suggest the use of a superfamilial name based on *Truncatella*; he first used TRUNCATELLOIDEA in a classification in 1964 (p. 171).

2. Because TRUNCATELLIDAE Gray, 1840 is on the Official List (1955, Opinion 344), and because Baker (1956, 1960) pointed out that the name TRUNCATELLIDAE was older than the names RISSOIDAE, HYDROBIIDAE and BITHYNIIDAE Troschel, 1857 (p. 101), the priority of TRUNCATELLOIDEA over RISSOOIDEA has been established. Despite this, malacologists have continued to use RISSOOIDEA and RISSOACEA, and Davis (1979, p. 7) and Ponder (1985, p. 15) explicitly favoured retention of RISSOACEA over TRUNCATELLACEA. Ponder (p. 15) stated that he intended to submit a petition to the ICZN to suppress TRUNCATELLACEA in favour of RISSOACEA, and some authors have maintained use of RISSOACEA for this reason (e.g. Bieler & Mikkelsen, 1988, p. 2).

3. We have given the Secretariat a representative list of 48 works published from 1959 to 1989 that place the TRUNCATELLIDAE or *Truncatella* in RISSOOIDEA or RISSOACEA. These works are by 55 authors in 19 countries. This list does not consider the hundreds of authors who have used RISSOOIDEA or RISSOACEA in their classifications without mention of *Truncatella*, TRUNCATELLIDAE or TRUNCATELLOIDEA. The only authors we have found who have given TRUNCATELLOIDEA priority over RISSOOIDEA are Baker

(1964), Burch and his co-workers (Burch, 1980, p. 136; 1982a, p. 3; 1982b, p. 219; Upatham et al., 1983, pp. 114, 118; Burch & Chung, 1985, p. 34) and some in a volume edited by Ponder in 1988 (Houbrick, p. 88; Ponder, p. 130; Ponder & Warén, p. 296; but not Haszprunar, p. 7). In Burch (1980) and Burch & Chung (1985), RISSOOIDEA is incorrectly attributed to H. & A. Adams (1854) rather than to Gray, 1847; it is not attributed in Burch's other works cited here. Ponder (1988, p. 130) stated '...I regret the necessity to abandon the almost universally used Rissooidea (Rissoacea) in favour of Truncatelloidea because of the requirements of ICZN Art. 36. This is not, in my opinion, a rule destined to maintain stability.' Ponder & Warén (1988, p. 296) stated 'The continued use of Rissooidea (as Rissoacea) by the majority of malacologists, including the authors, might argue in favour of having Truncatelloidea suppressed.'

4. Starobogatov (1970, pp. 26, 32) and Golikov & Starobogatov (1975, p. 210) included TRUNCATELLIDAE and HYDROBIIDAE in the superfamily TRUNCATELLOIDEA, and considered it equal in rank to RISSOOIDEA. In these classifications, the question of priority of RISSOOIDEA and TRUNCATELLOIDEA does not arise.

5. Nordsieck (1972, p. 134; 1982, p. 63) used the superfamily HYDROBIOIDEA for TRUNCATELLIDAE, HYDROBIIDAE and ASSIMINEIDAE H. & A. Adams, 1856 (p. 314), giving it equal rank with the RISSOOIDEA. In this classification, TRUNCATELLOIDEA should be given priority over HYDROBIOIDEA. We have found only one author, Koronéos (1979, p. 6), who follows Nordsieck in placing TRUNCATELLIDAE in HYDROBIOIDEA. Nordsieck misspelled RISSOOIDEA as 'Rissoidea' (1972, pp. 138, 153; 1982, pp. viii, 73). Radoman independently introduced the superfamily HYDROBIOIDEA in 1973 (p. 4), but excluded TRUNCATELLIDAE (Radoman, 1983, p. 23) without stating its systematic position.

6. The RISSOOIDEA is currently recognized as one of the largest superfamilies in the Mollusca, containing 2000 to 4000 species. Changing the superfamily name to TRUNCATELLOIDEA would affect about ten percent of the subclass Prosobranchia. The family TRUNCATELLIDAE contains fewer than 100 species (Clench & Turner, 1948).

7. The RISSOOIDEA includes medically important groups of snails, in particular the POMATIOPSIDAE, some members of which transmit schistosomes, which cause schistosomiasis, also called bilharziasis (reviewed by Davis, 1979, 1980).

8. When *Truncatella* Risso, 1826 was placed on the Official List by Opinion 344 (1955, pp. 315–316), its type species was cited as *Truncatella laevigata* Risso, 1826, by designation by Woodward, 1854. However, Woodward did not treat *Truncatella* in 1854 but in 1851, as shown in the text of the Opinion (pp. 326, 340). Furthermore, Woodward (1851, p. 137) cited *T. truncatula* (Draparnaud, 1801, p. 115) as the type species of *Truncatella*, and did not mention *Truncatella laevigata* or *T. costulata* Risso, 1826, the only two originally included species (Risso, p. 125). Woodward's designation is thus invalid. The next available designation is that by Lowe in 1855 (p. 217). Lowe cited *T. truncatula* (Draparnaud) as the type species of *Truncatella*, but included *T. costulata* and not *T. laevigata* in synonymy. This type designation is valid according to Article 69a(v). This change in the type species does not affect the concept of the taxon *Truncatella*, as *T. costulata* Risso, 1826, *T. laevigata* Risso, 1826, and *Cyclostoma truncatulum* Draparnaud, 1801 are all regarded as junior subjective synonyms of *Helix subcylindrica* Linnaeus, 1767 (Opinion 344, pp. 326, 335).

9. The type genus of RISSOIDAE is *Rissoa* Desmarest, 1814 (p. 7). Fréminville is often cited as the author of *Rissoa*, and Coan (1964, p. 166) stated that *Rissoa* was introduced by Fréminville in 1813 as a genus without included species. However, the only two uses

of *Rissoa* in 1813 are by Risso, who lists the genus in combination with several of Fréminville's manuscript names (Risso, 1813a, p. 87; 1813b, p. 341). Risso did not provide a description of the genus or any of the included species, so all are nomina nuda. Desmarest (1814, p. 7) was the first to make Fréminville's manuscript names available and must be regarded as the author of *Rissoa*.

10. The type species of *Rissoa* was cited as '*Helix labiosa*' by Gray (1847, p. 152) and as '*Turbo cimex* L.' by Herrmannsen (1848, p. 400), but neither of these is one of the originally included species. The first valid designation is that by Bucquoy, Dautzenberg & Dollfus (1884, p. 262) of *Rissoa ventricosa* Desmarest, 1814 (p. 8) (cf. Ponder, 1985, p. 21).

11. The type species of *Hydrobia* Hartmann, 1821 (1821a, p. 258) has been cited as *Turbo ulvae* Pennant by many authors (Stimpson 1865, p. 6), but this is not one of the originally included species. Hartmann (p. 258) included only *Cyclostoma acutum* Draparnaud, *Hydrobia thermara* and *Hydrobia diaphana*. The last two are nomina nuda, so *Cyclostoma acutum* Draparnaud, 1805 (p. 40) is the type species of *Hydrobia* by monotypy. Gray (1847, p. 151) was the first author to cite correctly the type species of *Hydrobia*. Hartmann also treated *Hydrobia* in a second work in 1821 (1821b, pp. 47, 58). This work cites (p. 58) the 1821a reference and so presumably was published later. In Hartmann (1821b), the species included in *Hydrobia* (*acuta*, *vitrea* and *minuta*) are either nomina nuda or are unidentifiable because of lack of indication.

12. In Opinion 475 (1957), BITHYNIIDAE Gray, 1857 (pp. 16, 24) was placed on the Official List as having several months priority over BITHYNIIDAE Troschel, 1857 (pp. vi, 101). It was also stated (p. 315) that BITHYNIIDAE was usually regarded as a subfamily of HYDROBIIDAE Troschel, 1857 (pp. vi, 106). However, there is no evidence that Gray's work was published before 31 December 1857; it cannot have been published before September, 1857 according to the date of the preface (p. xi), which indicates when the preface was written, not when the work was published, contrary to the interpretation in the Opinion (p. 315). Receipt of Troschel's work prior to 30 October 1857 was reported in *Monatsberichte der Königlichen Preuss. Akademie der Wissenschaften zu Berlin* for 1857 (p. 467). Thus, Troschel, not Gray, should be considered the author of BITHYNIIDAE. Currently HYDROBIIDAE and BITHYNIIDAE are not considered to be confamilial, so questions of priority do not arise.

13. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that RISSOIDAE Gray, 1847 and other family-group names based on *Rissoa* Desmarest, 1814 are to be given precedence over TRUNCATELLIDAE Gray, 1840 and other family-group names based on *Truncatella* Risso, 1826 whenever their type genera are placed within the same family-group taxon;

(2) to place on the Official List of Family-Group Names in Zoology the name RISSOIDAE Gray, 1847 (type genus *Rissoa* Desmarest, 1814), with the endorsement that it and other family-group names based on *Rissoa* are to be given precedence over TRUNCATELLIDAE Gray, 1840 (type genus *Truncatella* Risso, 1826) and other family-group names based on *Truncatella* whenever their type genera are placed within the same family-group taxon;

(3) to add to the entry for TRUNCATELLIDAE Gray, 1840 on the Official List of Family-Group Names in Zoology the endorsement that it and other family-

group names based on *Truncatella* Risso, 1826 are not to be given priority over RISSOIDAE Gray, 1847 and other family-group names based on *Rissoa* Desmarest, 1814, whenever their type genera are placed within the same family-group taxon;

(4) to place on the Official List of Family-Group Names in Zoology the name HYDROBIIDAE Troschel, 1857 (type genus *Hydrobia* Hartmann, 1821);

(5) to amend the entry for BITHYNIIDAE Gray, 1857 on the Official List of Family-Group Names in Zoology to give Troschel (1857) as the author of the name;

(6) to place the following names on the Official List of Generic Names in Zoology:
   (a) *Rissoa* Desmarest, 1814, type species by subsequent designation by Bucquoy, Dautzenberg & Dollfus (1884), *Rissoa ventricosa* Desmarest, 1814 (the type genus of RISSOIDAE Gray, 1847);
   (b) *Hydrobia* Hartmann, 1821, type species by subsequent designation by Gray (1847), *Cyclostoma acutum* Draparnaud, 1805 (the type genus of HYDROBIIDAE Troschel, 1857);

(7) to amend the entry for *Truncatella* Risso, 1826 on the Official List of Generic Names in Zoology to state that the valid name of its type species is *Helix subcylindrica* Linnaeus, 1767 (a senior subjective synonym of *Truncatella costulata* Risso, 1826, designated by Lowe (1855));

(8) to place the following names on the Official List of Specific Names in Zoology:
   (a) *ventricosa* Desmarest, 1814, as published in the binomen *Rissoa ventricosa* (specific name of the type species of *Rissoa* Desmarest, 1814);
   (b) *acutum* Draparnaud, 1805, as published in the binomen *Cyclostoma acutum* (specific name of the type species of *Hydrobia* Hartmann, 1821);

(9) to amend the entry on the Official List of Specific Names in Zoology for *subcylindrica*, *Helix*, Linnaeus, 1767 to state that it is the valid name (as a senior subjective synonym of *Truncatella costulata* Risso, 1826, designated by Lowe (1855)) of the type species of *Truncatella* Risso, 1826;

(10) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
   (a) *Rissoa* 'Fréminville' Risso, 1813a (a nomen nudum);
   (b) *Rissoa* 'Fréminville' Risso, 1813b (a nomen nudum).

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Case 1643

Mytilus anatinus Linnaeus, 1758 (currently *Anodonta anatina*; Mollusca, Bivalvia): proposed designation of a neotype

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Abstract. The purpose of this application is to conserve the name *Anodonta anatina* (Linnaeus, 1758) in its accustomed usage for a common species of European freshwater mussel by the designation of a neotype. This will also conserve the name *Pseudanodonta complanata* (Rossmässler, 1835).

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1. *Mytilus anatinus* Linnaeus, 1758 (p. 706) was based on an unknown number of specimens and three references. On the same page Linnaeus erected the nominal species *Mytilus cygneus*, also for mussels from European freshwater habitats.

2. *Mytilus cygneus* is the type species by monotypy of *Anodonta* Lamarck, 1799 (p. 87) and the specific names *cygnea* and *anatina* have long been in usage in *Anodonta*. Both specific names were placed on the Official List of Specific Names by Opinion 336 (March 1955), but that Opinion did not clarify the taxonomic meaning of either name.

3. Ellis (1962, p. 18) commented that 'The European species of *Anodonta* have been much confused in the past, and the nomenclature is not yet stabilised... several writers... have united all the European *Anodonta* sensu stricto into a single 'fundamental species'. The studies of Bloomer (1937, 1938) [and later workers, e.g. Baagoe, Hvilsom & Pedersen (1986)] have clearly demonstrated the specific distinctness of *Anodonta cygnea* and *A. anatina*'.

4. In general the shell of *cygnea* is roundly rectangular in outline with the straight dorsal margin parallel to the ventral one; anterior margin broadly curved; height approximately the same anterior and posterior to the umbones, which are traversed by a well-marked series of concentric, sometimes bifurcating ridges (rugae), lying more-or-less parallel to the growth lines; colour tending to yellow or yellowish green, rarely rayed; valves relatively thin, generally of uniform thickness throughout, growth lines normally visible from inside when viewed against the light. Animal normally a rich orange-yellow colour. The shell of *anatina* tends to be roundly triangular in juveniles since the dorsal margin is not parallel to the ventral one; anterior margin comparatively narrow, sloping abruptly ventrally; height greatest posterior to umbones which are traversed by well-marked, transverse wavy rugae, which are often discontinuous and tend to cross the growth lines; colour green or olive green, tending to become darker

posteriorly, often rayed; valves tending to be thicker, normally thickened antero-ventrally, growth lines not as apparent as in *cygnea* when viewed from inside against the light, especially anteriorly. Animal normally a cream-white colour.

5. The collection of the Linnean Society of London contains a shell inscribed '218' and '*cygneus*' in Linnaeus's handwriting (see Bloomer, 1938, pp. 39–40). This specimen was accepted as 'the type' (i.e. the lectotype) of *A. cygnea* by both Bloomer and Ellis (1962, p. 19), and previously Kennard & Woodward (1920, p. 215) had written '... the inscribed and numbered specimen... quite establishes... the identity [of *A. cygnea*]'. This specimen has been described by Bloomer (1938, pp. 36, 39–40, pl. 2, fig. 2) and Ellis (1962, p. 19), and is in accordance with modern usage of *cygnea*.

6. No equally satisfactory type for *Anodonta anatina* exists. In 1964 Dr H. Lemche published (BZN **21**: 432–434) an application for the designation of a neotype of *Mytilus anatinus* Linnaeus. Lemche's application and a comment on it by Prof P. Brinck (BZN **22**: 213–214) pointed out that the Linnaean specimens of '*anatinus*' in the collections of the Linnean Society of London and the Zoological Museum in Uppsala are examples of the species known as *Pseudanodonta complanata* (Rossmässler, 1835, p. 112) and not of *Anodonta anatina* auct. Hanley (1855, pp. 144–145) had previously noted this fact in his examination of the Linnean Society collection, pointing out that 'had the winged variety of *cygnea*, ordinarily termed *A. anatina*, been designated by our author [Linnaeus], he would scarcely have written in his own copy 'similis 28 (*Unio pictorum*) sed absque cardine''. Hanley figured one of the Linnean Society '*anatina*' (= *complanata*) on pl. 2, fig. 1. Later workers have continued to ignore Hanley's findings, using *A. anatina* for the species under consideration. Brinck showed that Linnaeus's concept of '*anatinus*' was undoubtedly composite and included both *anatina* and *complanata* of later authors. Lemche proposed as a neotype a specimen from an artificial moat in Copenhagen, while Brinck considered that a specimen from a natural lake would be more appropriate. Designation of a neotype would avoid transferring the name *anatina* to *complanata* auct. and hence from *Anodonta* to *Pseudanodonta* Bourguignat, 1877. Other workers commented on the case (BZN **21**: 435; **22**: 214–215), including A.E. Ellis who supported a neotype and who had been instrumental in having *Mytilus anatinus* placed on the Official List of Specific Names. Neotype designation was also supported by Bowden & Heppell (1968, p. 251) who said that transfer of the name *anatina* 'would be contrary to the interests of stability and would only add to the [taxonomic and nomenclatural] confusion'.

7. In 1968–69 there was correspondence between the Secretary of the Commission, Brinck and Lemche, in which Lemche withdrew his suggested Danish neotype and Brinck said that the so-called 'types' of the supposedly synonymous species *Anodonta piscinalis* Nilsson, 1823 (p. 116) were probably not original material; it was suggested that a suitable Swedish lake specimen could be collected and be designated neotype of both *anatina* and *piscinalis*. For various reasons the case lapsed at this point.

8. Subsequently six specimens were collected from Lake Dagstorp in Sweden, and were examined by Ellis. In a letter to the then Commission Secretary, he tentatively suggested that one of them might possibly be suitable as a neotype, the others being juvenile or not characteristic of *anatina* auct., but no neotype designation was published.

9. By 1989 workers were under one of two impressions, both incorrect. Some thought that Lemche's application had been ratified, i.e. that a neotype of *A. anatina*

had been designated, whilst others believed that there existed some fundamental obstacle to the use of the name *anatina* in the accustomed sense. In August 1989 Dr G. Falkner (München, Federal Republic of Germany) suggested at a Workshop meeting, at the Tenth International Malacological Congress in Tübingen, that *anatina* should replace *complanata* in *Pseudanodonta*, in agreement with the existing Linnaean specimens but contrary to Lemche's application (see para. 6) and to general usage. Falkner further suggested that *Anodonta anatina* auct., sometimes known as *Anodonta piscinalis* Nilsson, 1823, should be called *Anodonta radiata* (Müller, 1774, p. 209), the types of which still exist in the Copenhagen Museum. Some members of the Workshop provisionally supported these proposals, and in September 1989 Dr Falkner and Dr T. von Proschwitz (Göteborg, Sweden) asked the Executive Secretary of the Commission whether there were any doubts or obstacles relating to this course of action.

10. The Secretary sent summaries of the case's history to Drs Falkner and von Proschwitz and to various workers, pointing out that the proposal in para. 9 would change both the used names *Anodonta anatina* and *Pseudanodonta complanata* and, much more seriously, would transfer the name *anatina* to the *Pseudanodonta* species (see para. 6). On the other hand, designation of a neotype for *Anodonta anatina* would conserve both names (and would leave both *radiata* and *piscinalis* available should this be taxonomically desirable).

11. Support for the designation of a neotype for *Anodonta anatina* was expressed by all those who replied: Dr A.E.Bogan (*The Academy of Natural Sciences of Philadelphia, U.S.A.*), Prof P. Brinck (*University of Lund, Sweden*), Mr D. Heppell (*Royal Museum of Scotland, Edinburgh, U.K.*), Dr T. von Proschwitz (*Naturhistoriska Museet, Göteborg, Sweden*) and Mrs H.C.G. Ross (*Ulster Museum, Belfast, U.K.*). These correspondents included members of the Workshop mentioned in para. 9.

12. Mr A.E. Ellis had doubted whether any of the Lake Dagstorp specimens (see para. 8) were adequately illustrative of the differences between the shells of *A. cygnea* and *A. anatina*; Mr D. Heppell wrote to the Commission Secretary 'the two species are actually far more morphologically distinct in some parts of their distribution (e.g. the British Isles) than in others... Thus whereas there would be no difficulty in picking a neotype from a British locality which would unquestionably represent *anatina*, a specimen from a Scandinavian locality... is much more difficult'.

13. We have examined the Lake Dagstorp specimen referred to in para. 8, and share the late Mr Ellis's reservations concerning its suitability. We therefore designate as neotype of *Mytilus anatinus* Linnaeus, 1758 the shell from near Llangynidr, Brecon, Wales, U.K. figured by Bloomer (1938, pl. 5, fig. 11, and mentioned on p. 43) and cited by Ellis (1962, p. 22), which is preserved in The Natural History Museum, London (registration number 1989164). This specimen clearly shows the shell characteristics of *M. anatinus* as described in para. 4. Bloomer considered it to be typical (i.e. not a variety) of *anatina*, as did Ellis (1962).

14. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous fixations of type specimens for the nominal species *Mytilus anatinus* Linnaeus, 1758 and to confirm the neotype designation in para. 13 above;

(2) to make endorsements to the Official List of Specific Names in Zoology as follows:
  (a) to add to the entry for *Mytilus cygneus* Linnaeus, 1758 the words 'as defined by the lectotype fixed by Bloomer (1938)';
  (b) to add to the entry for *Mytilus anatinus* Linnaeus, 1758 the words 'as defined by the neotype designated by Mordan & Woodward (1990) [present reference]'.

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Case 2762

Griffithides Portlock, 1843 (Trilobita): proposed confirmation of *Griffithides longiceps* Portlock, 1843 as the type species, so conserving *Bollandia* Reed, 1943

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Abstract. The purpose of this application is to conserve the Carboniferous trilobite name *Griffithides* Portlock, 1843 in its accustomed usage by setting aside an overlooked type species designation. In 1846 Oldham designated *Asaphus globiceps* Phillips, 1836 as type of *Griffithides*, but the subsequent designation by Vogdes (1890) of *G. longiceps* Portlock, 1843 is universally accepted. In 1943 Reed designated *Asaphus globiceps* as the type of his new subgenus *Bollandia*. It is proposed that Oldham's designation of *Asaphus globiceps* as type of *Griffithides* be set aside to conserve *Griffithides* and *Bollandia* in their accustomed usage.

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1. Portlock (1843, p. 310) established the genus *Griffithides* with four included species. These were, in page order:

p. 310 *Griffithides longiceps* sp. nov.
p. 311 *Griffithides platyceps* sp. nov.
p. 311 *Asaphus globiceps* Phillips, 1836 (p. 240)
p. 312 *Griffithides longispinus* sp. nov.

Portlock did not designate a type species.

2. Oldham (1846, p. 188) designated *Asaphus globiceps* as the type species of *Griffithides*, using the following words: 'In 1843, Portlock... established... two new genera, *Griffithides* and *Phillipsia*, of the former of which the *Griffithides globiceps* may be considered the typical species'. All subsequent workers on Carboniferous trilobites neglected Oldham's designation, with one exception. Weber (1937, p. 66) gave *Asaphus globiceps* as the type species of *Griffithides*, but gave no reason. He did not quote Oldham's work either on p. 66 or under 'literature'.

3. Woodward (1883, pp. 27–28) in his fundamental work on British Carboniferous trilobites did not give a type species for *Griffithides*. He repeated (pp. 30–32) Oldham's description of *Asaphus globiceps* but omitted the sentence in which Oldham designated it as type species of *Griffithides*.

4. Vogdes (1890, p. 116), referring to *Griffithides*, wrote: 'Type, *Griffithides longiceps* Portlock', but made no further comment. Vogdes listed Oldham's 1846 work on p. 56 of his bibliography but did not notice, or did not accept, that Oldham had designated *Asaphus globiceps* as the type species.

5. Weller (1936, p. 706) revised *Griffithides*. He accepted *G. longiceps* as its type species with the following remark: 'by subsequent designation (Vogdes, 1890)'.

6. Reed (1943, p. 58) discussed the type species of *Griffithides* thus: 'It is generally acknowledged that *Gr. longiceps*, Portlock, should be regarded as the genotype, though Weber (1937, p. 66) apparently chooses *Asaphus globiceps* Phillips (1836, p. 240, pl. xxii, figs. 16–20), and puts *Gr. longiceps* as merely characterizing a group of the genus'. Reed accepted *G. longiceps* as the type species of *Griffithides* and (p. 62) designated *Asaphus globiceps* as the type species of his new subgenus *Bollandia* (p. 62) which he placed within the genus *Permoproetus* Toumansky, 1935.

7. In the *Treatise on Invertebrate Paleontology*, Weller (1959, p. 399) gave *G. longiceps* as the type species of *Griffithides* and *Asaphus globiceps* as the type species of *Bollandia*. He diagnosed both genera as corresponding to those type species.

8. Since 1959, all authors have followed the type species designations for *Griffithides* and *Bollandia* as given in the *Treatise*. For example, both *Griffithides* (with type species *G. longiceps*) and *Bollandia* (with type species *Asaphus globiceps*) have been used by Bouček & Přibyl (1960, p. 30), Osmólska (1970, pp. 33, 108), Morris (1988, pp. 35, 102) and Tilsley (1988, pp. 163, 168). A representative list of nine more papers by five authors using *Griffithides* or *Bollandia* with these type species designations is held by the Commission Secretariat.

9. To accept Oldham's designation of *Asaphus globiceps* as type species of *Griffithides* would have the following consequences:

a). *Bollandia* becomes a junior objective synonym of *Griffithides*.

b). The name *Griffithides* must be transferred to the species currently attributed to *Bollandia*, and the species currently attributed to *Griffithides* are without a name.

These consequences disturb the current usage of the nominal genera *Griffithides* and *Bollandia* and, in order to conserve these nominal genera in their current usage, I propose the setting aside of all designations of type species for *Griffithides* prior to that by Vogdes (1890).

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all designations of type species for the nominal genus *Griffithides* Portlock, 1843 prior to that by Vogdes (1890) of *Griffithides longiceps* Portlock, 1843;

(2) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Bollandia* Reed, 1943 (gender: feminine), type species by original designation *Asaphus globiceps* Phillips, 1836;
  (b) *Griffithides* Portlock, 1843 (gender: masculine), type species by subsequent designation by Vogdes (1890) *Griffithides longiceps* Portlock, 1843, as ruled in (1) above;

(3) to place on the Official List of Specific Names in Zoology the following names:
  (a) *globiceps* Phillips, 1836, as published in the binomen *Asaphus globiceps* (specific name of the type species of *Bollandia* Reed, 1943);
  (b) *longiceps* Portlock, 1843, as published in the binomen *Griffithides longiceps* (specific name of the type species of *Griffithides* Portlock, 1843).

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Case 2687

Longitarsus symphyti Heikertinger, 1912 (Insecta, Coleoptera): proposed conservation of the specific name

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Abstract. The purpose of this application is the conservation of the specific name of a flea beetle, *Longitarsus symphyti* Heikertinger, 1912, which is threatened by an unused senior synonym.

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1. In 1893 Weise (p. 1010) described a 'var. *luctator*' under *Longitarsus aeruginosus*. The name *luctator* has never been used by subsequent authors, but under Article 45g(ii) the name is to be treated as subspecific.

2. Heikertinger (1912, p. 69) showed that the 'variety' described by Weise as *luctator* is the winged form of an independent species, which he named *Longitarsus symphyti*. This name has been used by all subsequent authors. A representative list of six important works on European CHRYSOMELIDAE in which *symphyti* is used is held by the Secretariat. The species is widespread in west and central Europe, except the Mediterranean subregion.

3. As the name *luctator* has not been used in entomological literature since its proposal for a "variety" and the name *symphyti* has gained wide usage for this species of flea beetle, it is desirable for the sake of stability that the older synonym be suppressed.

4. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to suppress the specific name *luctator* Weise, 1893, as published in the combination *Longitarsus aeruginosus* var. *luctator*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *symphyti* Heikertinger, 1912, as published in the binomen *Longitarsus symphyti*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *luctator* Weise, 1893, as published in the combination *Longitarsus aeruginosus* var. *luctator* and as suppressed in (1) above.

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Case 2738

Acanthophthalmus van Hasselt in Temminck, 1824 (Osteichthyes, Cypriniformes): proposed conservation, and proposed designation of *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846 as the type species

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Abstract. The purpose of this application is to designate *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846 as the type species of *Acanthophthalmus* van Hasselt in Temminck, 1824, a genus of small cobitid fishes from Southeast Asia, commonly known as the coolie loaches, in accordance with accustomed interpretation and usage. The generic name was first published (1823) as *Acantophthalmus* but this spelling has not been used and its suppression is proposed.

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1. In 1823 van Hasselt (p. 133) proposed the generic name *Acantophthalmus* for some of the loaches with an erectile suborbital spine. The genus included *Cobitis taenia* Linnaeus, 1758, but the three other species, including *fasciatus*, were nomina nuda, as noted by Kottelat (1987, p. 371). *C. taenia* is thereby fixed as the type species of *Acantophthalmus* by monotypy; its inclusion makes *Acantophthalmus* an available name (Article 12b(5) of the Code).

2. The work by van Hasselt consists of parts of letters sent from Java to Temminck at the Leiden museum, two of which contained several new fish names and which were published by the latter in 1823 after van Hasselt's death. A series of drawings sent by van Hasselt to Temminck, which were subsequently seen by Valenciennes, have never been published and are now presumed to have been lost (Kottelat, 1987, p. 368). A subsequent (1824a, b) French translation of the letters from the original Dutch contained many alterations in the text and 'corrections' in the spelling of several of the names which were probably made by Valenciennes (see Alfred, 1962, p. 80). For example, *Acantophthalmus* and *Acantopsis*, both genera of loaches, are two names spelled differently in the 1823 and 1824 versions. An 'h' was added to the 'Acant-' prefix

in both names, to produce *Acanthophthalmus* and *Acanthopsis* (van Hasselt in Temminck, 1824b, pp. 376–377). The spellings *Acanthophthalmus* and *Acanthopsis* are unjustified emendations but, under Article 33b(iii), are available names. *Cobitis taenia* remains the type species of the nominal genus *Acanthophthalmus*. The French version of the second communication, in which the name *Acanthophthalmus* appeared, is unsigned; however, van Hasselt's name was published at the end of the first letter (1824a, p. 92), and the name *Acanthophthalmus* (1824) is ascribed to him. The spelling *Acanthophthalmus* was adopted by later authors. Valenciennes in Cuvier & Valenciennes (1846, pp. 25–26) attributed authorship of the name *Acanthophthalmus* to Kuhl and van Hasselt but clearly it should be ascribed to van Hasselt alone, and is correctly cited as van Hasselt in Temminck (Recommendation 51B of the Code). (The authorship and dates of publication of the various parts of *Histoire Naturelle des Poissons* by Cuvier & Valenciennes are set out in Opinion 580, December 1959).

3. In the same 1823 Dutch work, van Hasselt (p. 133) also proposed the new generic name *Noemacheilus*, with the single included species *fasciatus*. The binomen was repeated in the 1824 French translation with the spelling unchanged but in both versions it is a nomen nudum. Valenciennes (1846) described the species *fasciatus*, which lacks the suborbital spine, from a specimen and one of van Hasselt's drawings sent to him by Temminck. Valenciennes did not accept *Noemacheilus* as a taxonomically distinct genus, and placed all the loaches in *Cobitis* Linnaeus, 1758.

4. Valenciennes (1846, p. 77) also provided a description for van Hasselt's species *Acanthophthalmus fasciatus* (see para. 1), and renamed it *Cobitis kuhlii* to avoid homonymy within *Cobitis*. Bleeker (1858, p. 304) listed and described the genera of loaches known to inhabit the 'Archipelagi Indici', including *Acanthophthalmus* (attributing the name to van Hasselt). In 1863, Bleeker (p. 364) designated '*Acanthophthalmus fasciatus* van Hasselt' (which he listed (p. 367) as '= *Cobitis kuhlii* Valenciennes') as the type species of *Acanthophthalmus*, although, as pointed out in para. 1, *Cobitis taenia* Linnaeus, 1758 is the type species by monotypy. Bleeker excluded *C. taenia* from *Acanthophthalmus*. Bleeker's concept of the genus has been adopted by subsequent authors and is still current today, although it is illegitimate under the modern Code because of the exclusion of *C. taenia*.

5. Also in 1863, Bleeker (pp. 362, 364) designated *Cobitis taenia* Linnaeus, 1758 as the type species of *Cobitis* Linnaeus, 1758 and recently the Commission validated this designation (Opinion 1500, June 1988). *Acantophthalmus* van Hasselt in Temminck, 1823 thus became a junior objective synonym of *Cobitis* Linnaeus, 1758 and it was so placed on the Official Index of Rejected and Invalid Generic Names in Zoology. It follows that *Acanthophthalmus* van Hasselt in Temminck, 1824 is also a junior objective synonym of *Cobitis*.

6. Blyth (1860, p. 169) described a new genus, *Pangio*, for *Cobitis cinnamomea* McClelland, 1839 (p. 304), which McClelland had unnecessarily proposed as a replacement name for *C. pangio* Hamilton, 1822. *C. cinnamonea* is currently included among the coolie loaches. Following Bleeker (1863, pp. 363, 364), *Pangio* has consistently been considered as a junior subjective synonym of *Acanthophthalmus* and has had no subsequent use (see Systematic Index of the Pisces sections of *Zoological Record*, 1864 to 1989). It was adopted, however, by Kottelat in 1987 (p. 371), who drew attention to the considerable confusion that the loss of the generic name *Acanthophthalmus* as a junior objective synonym of *Cobitis* would cause. Acceptance of *Pangio* as the name for the

coolie loaches would upset nearly 130 years of consistent usage of *Acanthophthalmus* in both the technical and popular literature. Several species are now included in the genus and the name *Acanthophthalmus* appears in catalogues and guides, including Nelson (1985, p. 127), Roberts (1989), Smith (1965, pp. 287, 299–301) and Weber & de Beaufort (1916, pp. 30–35), as well as taxonomic works. A representative list of 14 references, ranging from 1868 to 1989, which demonstrate use of the name is held by the Commission Secretariat.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to suppress the generic name *Acantophthalmus* van Hasselt in Temminck, 1823 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
  (b) to set aside all previous fixations of type species for the nominal genus *Acanthophthalmus* van Hasselt in Temminck, 1824 and to designate *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846 as the type species;
(2) to place on the Official List of Generic Names in Zoology the name *Acanthophthalmus* van Hasselt in Temminck, 1824 (gender: masculine), type species by designation in (1)(b) above *Cobitis kuhlii* Valenciennes in Cuvier & Valenciennes, 1846;
(3) to place on the Official List of Specific Names in Zoology the name *kuhlii* Valenciennes in Cuvier & Valenciennes, 1846, as published in the binomen *Cobitis kuhlii* (specific name of the type species of *Acanthophthalmus* van Hasselt in Temminck, 1824);
(4) to amend the entry on the Official Index of Rejected and Invalid Generic Names in Zoology for the name *Acantophthalmus* van Hasselt in Temminck, 1823, to note its suppression as in (1)(a) above.

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Case 2693

Trionyx sinensis Wiegmann, 1834 (Reptilia, Testudines): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the name *Trionyx sinensis* Wiegmann, 1834 for a turtle by the suppression of the senior subjective synonym *Testudo rostrata* Thunberg, 1787.

1. Thunberg described the turtle *Testudo rostrata* in 1787. As noted by Lönnberg (1896, p. 33), Thunberg first mentioned the name *Testudo rostrata* with only brief comments in Latin (1787a, p. 21). Later in the same year he repeated the comments and gave a more elaborate description in Swedish (1787b, p. 179); this paper was published in German the following year (1788, p. 173). The comments in the first paper (1787a) are adequate to make the name available.

2. Webb (1985, p. 85) described and figured the holotype of *Testudo rostrata* from the Linnaean Collection in the Zoological Museum of the University of Uppsala and outlined the history of the name. He demonstrated that *Testudo rostrata* is a senior synonym of *Trionyx sinensis* Wiegmann. *Testudo rostrata* has not been used as a valid name since Lönnberg (1896, p. 34) considered it to be a synonym of *Trionyx swinhonis* (correct original spelling *swinhoei*) Gray, 1873. *Trionyx* or *Rafetus swinhoei* is regarded as a distinct species (Meylan & Webb, 1988).

3. The name *Trionyx (Aspidonectes) sinensis* was made available by Wiegmann in the work *Beiträge zur Zoologie, gesammelt auf einer Reise um die Erde von Dr. F. J. F. Meyen* (p. 189). This work is usually dated as published in 1835. However, Dr. R. I. Crombie, Division of Amphibians and Reptiles, National Museum of Natural History, Washington, D.C., has made a detailed study of Wiegmann's original publications and the incidental literature surrounding Meyen's *Reise* and has established that it appeared in 1834. Thus, the name *Trionyx sinensis* Wiegmann was made available in 1834.

4. In Opinion 660 (1963, BZN **20**: 187–190), the name *Trionyx sinensis* Wiegmann was conserved by suppression of the senior synonym *Testudo semimembranacea* Hermann, 1804 and was placed on the Official List of Specific Names in Zoology. It is now necessary to conserve it against its senior subjective synonym *Testudo rostrata*.

5. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *rostrata* Thunberg, 1787, as published in the binomen *Testudo rostrata*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *rostrata* Thunberg, 1787, as published in the binomen *Testudo rostrata*, and as suppressed in (1) above.

(3) to amend the entry on the Official List of Specific Names in Zoology for the name *sinensis* Wiegmann, as published in the binomen *Trionyx sinensis*, to be taken from 1834 and not 1835.

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Wiegmann, A. F. A. 1834. Beiträge zur Zoologie, gesammelt auf einer Reise um die Erde, von Dr. F. J. F. Meyen. Siebente Abhandlung. Amphibien. *Nova Acta Physico-Medica Academiae Caesareae Leopoldino-Carolinae*, **17**: 183–268.

Comment on the adoption of 'Protected Works' for purposes of zoological nomenclature
(See BZN **44**: 79–85; **45**: 45–47, 144, 145; **46**: 9, 185–186)

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I do think that 'Protected Works' would be helpful in stabilizing nomenclature. I realize that in my position as compiler of *Amphibian Species of the World* this may sound self-serving, but I have been surprised at the number of times at professional meetings that nomenclature users (e.g. zoo and medical personnel, ecologists, etc.) asked me why something along these lines was not done. Of course, they would rather the names of species never changed, but then they do not understand that we have a need to portray relationship, not just a simple naming convention.

Maybe the solution is to adopt works with the proviso that proposals for excepting individual names be submitted to a special committee within the Commission (or appointed by the Commission) within five years. Protected Works would not obviate future petitions, but certainly would put an end to the endless exhumations of forgotten (and reasonably so) names from ancient literature. The status of family-group names is particularly knotty, as although these names are comparatively rare compared to all nomenclature they require an astounding amount of time to resolve (and even then inherent ambiguity in the Code makes many decisions questionable).

Comments on the proposed conservation of the generic name *Myriochele* Malmgren, 1867 (Annelida, Polychaeta)
(Case 2554; see BZN **46**: 229–232)

(1) R. Thomas Becker
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One of the proposals in this application (BZN **46**: 231, para. 14) is the suppression of the almost unused polychaete generic name *Clymenia* Ørsted, 1844. It is unnecessary to do this, because this name is a junior homonym of *Clymenia* Münster, 1834 (p. 43), which is in use for a genus of Upper Devonian ammonoids and is the basis of family-group and order names.

Additional reference

Münster, G. 1834. Mittheilungen an Professor Brown gerichtet. *Neues Jahrbuch für Mineralogie, Geognosie, Geologie und Petrefaktenkunde*, **1834**: 42–43.

A similar comment has been received from Prof Dr G. Hahn (*Fachbereich Geowissenschaften, D-3550 Marburg (Lahn), Fed. Rep. Germany*).

(2) Andrew Mackie
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Fredrik Pleijel
Swedish Museum of Natural History, Box 50007, S-104 05 Stockholm, Sweden

The aims of Nilsen & Holthe's application are to retain two junior subjective synonyms: *Myriochele* Malmgren, 1867 and *oculata* Zaks, 1923. While we believe this desirable and agree with the suppressions proposed, we would like to draw attention to an overlooked point.

Nilsen & Holthe (BZN **46**: 231, para. 12) regard *Galathowenia* Kirkegaard, 1959 as a junior synonym of *Myriochele*. There is, however, no consensus on this matter. *Galathowenia* and *Myriochele* are regarded as distinct valid genera in several recent works (Kirkegaard, 1983; Blake, 1984; Imajima & Morita, 1987) not referred to in the application. *Myriochele oculata* is regarded by several authors (Blake & Dean, 1973; Kirkegaard, 1983) as a senior synonym of *Galathowenia africana* Kirkegaard, 1959, the type species of *Galathowenia*.

Additional references

Blake, J.A. 1984. Polychaeta Oweniidae from Antarctic Seas collected by the United States Antarctic Research Program. *In* Hutchings, P.A. (Ed.), *Proceedings of the First International Polychaete Conference*. The Linnean Society of New South Wales, Sydney.

Blake, J.A. & Dean, D. 1973. Polychaetous annelids collected by the R/V *Hero* from Baffin Island, Davis Strait, and West Greenland in 1968. *Bulletin of the Southern Californian Academy of Sciences*, **72**(1): 31–39.

Imajima, M. & Morita, Y. 1987. Oweniidae (Annelida, Polychaeta) from Japan. *Bulletin of the National Science Museum, Tokyo, Ser. A*, **13**(3): 85–102.

Kirkegaard, J.B. 1983. Bathyal benthic polychaetes from the N.E. Atlantic Ocean, S.W. of the British Isles. *Journal of the Marine Biological Association of the United Kingdom*, **63**(3): 593–608.

(3) Susan Chambers
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I would like to support the conservation of the names *Myriochele* Malmgren, 1867 and *oculata* Zaks, 1923 as proposed by Nilsen & Holthe (BZN **46**: 229–232).

Comments on the proposed precedence of *Aphonopelma* Pocock, 1901 (Arachnida, Araneae) over *Rhechostica* Simon, 1892

(Case 2662; see BZN **46**: 165–166, 189–190)

(1) Robert J. Raven
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Levi & Kraus present a case for the precedence of *Aphonopelma* over the older *Rhechostica*. The information given in their application is incomplete, however. Nobody naming any material from central America or southern North America ever considered the taxonomic status of *Rhechostica* until I did so (Raven, 1985). The family THERAPHOSIDAE has not been revised, either in its entirety or in any region, including North America. A group so long left without revision becomes, as did the THERAPHOSIDAE, a nomenclatural and taxonomic nightmare.

Three generic names (*Eurypelma*, *Aphonopelma* and *Rhechostica*) have been applied to one species, *Eurypelma californicum* Ausserer, 1871. Despite all activities of taxonomists, U.S. experimentalists in fact persist in using the binomen *Eurypelma californicum* for this common U.S. spider used in physiological and anatomical studies. That species has been used only once in the combination *Aphonopelma californicum*. Hence, the name *Eurypelma* Koch, 1850 still ranks higher in usage than any other. Most of those uses refer to what some prefer to call *Aphonopelma*.

The name *Rhechostica* has not been forgotten by any cataloguer. The application by Levi & Kraus (1989) omits mention of Simon (1903) and Petrunkevitch (1928). The latest catalogue (Platnick, 1989) upholds the usage of *Rhechostica*. The most recent papers cited in the application are dated 1986. However, Raven (1985) was published in December of 1985 and since then a number of authors (e.g. Bevington, 1989; Harvey, 1989; Lowe, 1989; Schmidt, 1989; Smith, 1986, 1989) have cited *Rhechostica* as the senior synonym of *Aphonopelma*.

Many in the scientific world and the pet trade who keep in touch with the literature concerning names of animals have adopted *Rhechostica* since my careful study of the type species of all mygalomorph genera where some representative, if not the types, existed. My change was a change from total confusion to stability. The alternative is yet another change simply for the sake of name-changing.

No contention exists about the greater usage of *Aphonopelma* over *Rhechostica* in the past. However, *Eurypelma* is the most frequently used name for theraphosids in North America. Use of either *Aphonopelma* or *Eurypelma* is the result of incomplete studies. I consider that *Rhechostica* should be retained rather than *Aphonopelma*, so that the stability so far gained remains.

Additional references

Bevington, M. 1989. Theraphosides — some feeding observations. *Journal of the British Tarantula Society*, **4**: 28–29.

Harvey, D.A.D. 1989. The classification of mygalomorph spiders. Part 2. Nemesiidae, Theraphosidae and Paratropididae. *Journal of the British Tarantula Society*, **5**: 21–26.

Lowe, B. 1989. Moulting yearly? *Journal of the British Tarantula Society*, **4**: 29.

Petrunkevitch, A. 1928. Systema aranearum. *Transactions of the Connecticut Academy of Arts and Sciences*, **29**: 1–270.

Platnick, N.I. 1989. *Advances in Spider Taxonomy 1981–1987: A supplement to Brignoli's A catalogue of the Araneae described between 1940 and 1981.* 680 pp. Manchester University Press, Manchester.

Raven, R.J. 1985. The spider infraorder Mygalomorphae (Araneae): cladistics and systematics. *Bulletin of the American Museum of Natural History*, **182**: 1–180.

Schmidt, G. 1989. *Vogelspinnen: Vorkommen, Lebensweise, Haltung und Zucht, mit Bestimmungsschlüssel für alle Gattungen.* 126 pp. Blüchel & Philler, Minden.

Simon, E. 1903. *Histoire Naturelle des Araignées.* 2nd Ed., part 4. 381 pp. Roret, Paris.

Smith, A.M. 1986. Species file: *Rhechostica seemanni* (Cambridge, 1897). *Journal of the British Tarantula Society*, **1**: 22–26.

Smith, A.M. 1989. *The tarantula: classification and identification guide.* Fitzgerald, London.

(2) Support for the application by Levi & Kraus (BZN **46**: 165–166) has been received from the following (see also BZN **46**: 189–190): J.C. Cockendolpher (*Texas Tech University, Lubbock, Texas 79409, U.S.A.*), B.Y. Main (*University of Western Australia, Perth, Western Australia 6009*), D. Ubick (*California Academy of Sciences, San Francisco, California 9411, U.S.A.*) and T. Yaginuma (*3-7-14 Harinakano, Higashisumiyoshi-ku, Osaka 546, Japan*).

Comments on the proposed designation of *Fonscolombia graminis* Lichtenstein, 1877 as the type species of *Fonscolombia* Lichtenstein, 1877, with an additional proposal to suppress the names *Tychea* Koch, 1857 and *T. graminis* Koch, 1857 (Insecta, Homoptera)

(Case 2695; see BZN **46**: 119–122)

(1) Evelyna M. Danzig
Zoological Institute, Academy of Sciences of the U.S.S.R., Leningrad 199034, U.S.S.R.

I support the proposal of Ben-Dov & Matile-Ferrero. The names *Fonscolombia* and *F. graminis* date from the reference 'Lichtenstein, 1877b' given in the application. This paper in the *Entomologist's Monthly Magazine* appeared before 11 July 1877, while the reference '1877a' was published on 5 September (see *Annales de la Société Entomologique de France*, (5)**7**, bulletin bibliographique, pp. 35, 43). In a third paper published in 1877 (late August), which is not mentioned in the application, Lichtenstein clearly stated (p. 491) that his *graminis* was distinct from *Coccus radicumgraminis* Fonscolombe, and he synonymized it with *Tychea graminis* Koch.

Koch (1857, p. 296) established the genus *Tychea* with two new species, *T. graminis* (p. 298) and *T. amycli* (p. 300); the first was designated as type species by Kirkaldy (1906, p. 9). The original description of *T. graminis* was based on a mixture of an unidentifiable scale insect from the family PSEUDOCOCCIDAE and an aphid, which according to Schouteden's (1906) interpretation is identical to *Tetraneura ulmi* (Linnaeus, 1758, p. 452) (see Morrison & Morrison, 1966, p. 80; Eastop & Hille Ris Lambers, 1976, p. 444). Neither the generic name *Tychea* nor the species name *T. graminis* are in use (see BZN **46**: 120, para. 6) and they are a source of potential confusion.

Accordingly, in addition to the proposals on BZN **46**: 120–121, I ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to suppress the names *Tychea* Koch, 1857 and *graminis* Koch, 1857, as published in the binomen *Tychea graminis*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Tychea* Koch, 1857, as suppressed in (1) above;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *graminis* Koch, 1857, as published in the binomen *Tychea graminis* and as suppressed in (1) above.

[These supplementary proposals are supported by Dr Y. Ben-Dov].

Additional references

Eastop, V.F. & Hille Ris Lambers, D. 1976. *Survey of the World's aphids.* 573 pp. Junk, The Hague.

Kirkaldy, G.W. 1906. Catalogue of the genera of the hemipterous family Aphidae, with their typical species, together with a list of the species described as new from 1885 to 1905. *The Canadian Entomologist*, **38**: 9–18.

Koch, C.L. 1857. Pp. 275–335 in *Die Pflanzenläuse, Aphiden* (1854–1857). 335 pp. Lotzbeck, Nürnberg.

Lichtenstein, J. 1877. Weitere Beiträge zur Geschichte der Wurzel-Läuse. Homoptera anthogenetica. *Stettiner entomologische Zeitung*, **38**: 489–492.

Morrison, H. & Morrison, E.R. 1966. An annotated list of generic names of the scale insects. *U.S. Department of Agriculture Miscellaneous Publications*, No. 1015, 206 pp.

Schouteden, H. 1906. Catalogue des Aphides de Belgique. *Mémoires de la Société entomologique de Belgique*, **12**: 189–246.

(2) P.K. Tubbs

Executive Secretary, International Commission on Zoological Nomenclature

As first proposed, in the *Entomologist's Monthly Magazine*, **14**: 35 (see Dr Danzig's comment above), the specific name *graminis* Lichtenstein, 1877 was formally an unjustified emendation (replacement name) of *radicumgraminis* Fonscolombe, 1834 (see BZN **46**: 119, para. 2).

For procedural propriety, proposal (1) in BZN **46**: 120, para. 12 should be replaced by:

'(1) to use its plenary powers to rule that the name *graminis* Lichtenstein, 1877, as published in the binomen *Fonscolombia graminis*, is to be treated as the specific name of a then new nominal species, now defined by the type specimen designated by Ben-Dov & Matile-Ferrero, 1989.'

Acceptance of this proposal would fix the type species of *Fonscolombia* Lichtenstein, 1877 as *F. graminis* by monotypy (cf. proposal (2) on BZN **46**: 121).

Comments on the valid name for the butterfly known as '*Colias alfacariensis* Ribbe, 1905' or '*Colias australis* Verity, 1911' (Insecta, Lepidoptera)

(Case 2617; see BZN **45**: 29–32)

(1) L.B. Holthuis
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The authors are incorrect in their interpretation (BZN **45**: 30, para. 5) of the expression 'a number of individuals within a species' in the Code definition of 'aberration': it applies to a population as to any other set of individuals.

The names *alfacariensis* Ribbe, 1905 and *australis* Verity, 1911 are both unavailable, and it is up to the authors to find the first available use of *alfacariensis* or *australis*.

(2) E.J. Reissinger
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S. Wagener
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(1) Ribbe (1905, p. 137) described a new 'Form' [sic] of *Colias hyale* from Andalusia but unfortunately the 'ab.' in the name *Colias hyale* ab. *alfacariensis* formally renders the name unavailable under Article 45f(ii) of the Code, although 'Form' denotes a subspecies (Article 45g(ii)).

(2) On the other hand, following German linguistic usage, it is quite clear that Ribbe was not describing an aberrant or seasonal morph, but stated clearly that the taxon was characteristic of a particular geographical area. In the contemporary literature the use of 'var.', 'form' and 'ab.' was not clearly differentiated. In 1906 (p. 134) and 1907 (p. 89) Ribbe himself mentioned '*Colias hyale* v. *alfacariensis*', but unfortunately he did not refer to his 1905 description and thereby make the name available.

(3) Verity's 1911 (p. 347; cf. BZN **45**: 30, para. 6) description of the 'race' *australis* from Andalusia appeared in January 1911; in October his Index Systématique (p. xxxiv) explicitly showed that the word 'race' was to be interpreted as infrasubspecific (see BZN **45**: 30, para. 8). Entirely formally, *australis* could be held to be available from January 1911. Whether available or not, it is now evident that *alfacariensis* and *australis* are synonyms for a distinct species of butterfly (Berger, 1944, 1945), known in English as Berger's Clouded Yellow.

(4) Considered from their intentions, it is quite clear that Ribbe (1905) wanted to describe a 'Form' or 'Varietas' (subspecies) whereas Verity (1911) was describing what in his view was an infrasubspecific taxon.

(5) Verity (1916, p. 99) described and gave the name *calida* to the *Colias hyale* of the summer generation (only) from Tuscany; from taxonomic considerations it is known that he was dealing with *Colias alfacariensis*/*australis*. In 1923 Verity & Querci (1923, p. 15) applied '*Colias hyale*, L., race *calida*, Vrty.' to specimens of both generations, and the name *calida* Verity, 1916 is available under Article 45 of the Code (see Cockayne, 1952, p. 166), or from Verity & Querci, 1923, under Article 10c. It would be destabilizing to use this name for the entire species.

(6) Bubaček (1924, p. 23) differentiated '*Colias hyale* v. *alfacariensis* Ribbe' of Andalusia from the 'Nominatform'. Under Article 45g(ii) this can make *alfacariensis* Ribbe, 1905 available as from its original publication for a 'Form' even if the 'content of the work' [the use of 'ab.', but not the meaning] had given it infrasubspecific rank. Even if this were held not to be so, *C. alfacariensis* would be available under Article 10c as from Bubaček, 1924, but to cite this authorship and date would be wholly artificial.

(7) We contend that *Colias alfacariensis* Ribbe, 1905, *C. australis* Verity, 1911 (January) and *C. calida* Verity, 1916 can be considered available under the Code.

(8) As noted in BZN **45**: 30, para. 9, lectotypes of both *C. alfacariensis* Ribbe, 1905 and *C. australis* Verity, 1911 have been designated, although that of the latter has disadvantages (the original specimens of Verity include *C. hyale* as well as *C. australis*; their origin is doubtful and they do not agree with Spanish specimens).

(9) To assure a consensus in the use of the name for this taxon, we therefore request the Commission, using its plenary powers where necessary, to declare that:

(1) the name *alfacariensis* Ribbe, 1905, as published in the combination *Colias hyale* ab. *alfacariensis*, is an available name;

(2) the name *australis* Verity, 1911, published as a race of *Colias hyale hyale*, is not an available name;

(3) the name *calida* Verity, 1916, as published in the combination *Colias hyale calida*, is an available name.

Additional references

Bubaček, O. 1924. Uber eine Lepidopterenausbeute aus Andalusien. *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien*, **73**: 22–24.

Cockayne, E.A. 1952. *Colias calida* Verity: the correct name for the butterfly lately added to the British list. *The Entomologist's Record and Journal of Variation*, **64**: 166–168.

Ribbe, C. 1906. Eine Sammelreise nach Süd-Spanien. *Insekten-Börse, Leipzig*, **23**: 134.

Ribbe, C. 1907. Eine Sammelreise nach Süd-Spanien. *Insekten-Börse, Leipzig*, **24**: 88–89.

Verity, R. 1916. The British races of butterflies: their relationships and nomenclature. *The Entomologist's Record and Journal of Variation*, **28**: 98–99.

Verity, R. & Querci, O. 1923. Races and seasonal polymorphism of the Grypocera and of the Rhopalocera of peninsular Italy. *The Entomologist's Record and Journal of Variation*, **35** (supplement): 1–21.

(3) O. Kudrna

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I cannot see any evidence in this application that I have not written about previously (Kudrna, 1982). The name *Colias alfacariensis* Berger, 1948 is the oldest available name for the species. I see no reason for bending the rules to attribute the authorship to the (supposed) original discoverer — after all, it was Berger (or rather Berger & Fountaine) who discovered the species.

Reference

Kudrna, O. 1982. On the nomenclature of *Colias alfacariensis* Berger, 1948 (Lepidoptera: Pieridae). *Journal of Research on the Lepidoptera*, **20**: 103–110.

(4) W.G. Tremewan

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(1) I have studied the literature involved in this case. It is clear from Ribbe's 1905 description of the nominal taxon *alfacariensis* that he was referring to a geographical population and not to an aberration. Ribbe's use of the terms 'ab.' and 'var.' were not consistent, and it is therefore my opinion that the availability of any nominal taxon described by him should be based on interpretation. The fact that he cited the name of his 'Form' *alfacariensis* with the prefix 'ab.' is, in my opinion, a mere technicality which should not render the name unavailable.

(2) As Balleto & Kudrna (1986) and I (Tremewan, 1988) have pointed out, the 2000 names proposed by Verity also cause many problems. It is an enormous and unjustified waste of time and effort to search the literature for citations which may have 'validated' a name now used in the species-group. In the particular case of the burnet moth genus *Zygaena* I suggested (p. 239) that the Commission might be asked to rule that the name of any nominal taxon now used at specific or subspecific rank should be ruled to be available from its original publication, even if it had been published as an addition to a trinomen.

(3) The Preamble to the Code (p. 3) states 'The object of the Code is to promote stability and universality in the scientific names of animals...'; therefore, it should be interpreted in such a manner as will do just this. Unlike 'nomenclaturists', most scientists use nomenclature as a tool to promote taxonomy and other sciences and do not regard it as a 'science' in itself.

(4) I therefore fully support the application, and request that the International Commission on Zoological Nomenclature should use its plenary powers to rule that *Colias alfacariensis* Ribbe, 1905 is an available name.

Additional references

Balletto, E. & Kudrna, O. 1986. An annotated catalogue of the Burnets and Foresters (Lepidoptera: Zygaenidae) named by Roger Verity. *Journal of Research on the Lepidoptera*, **24**: 226–249.

Tremewan, W.G. 1988. The problem of infrasubspecific names in some groups of Lepidoptera. *Nota Lepidopterologica*, **10**: 236–240.

(5) P.K. Tubbs

Executive Secretary, International Commission on Zoological Nomenclature

For the last 40 years there has been confusion about the valid name for this butterfly. With a few exceptions (see BZN **45**: 29, para. 2 and the above comment by Dr O. Kudrna) it has been referred to as either *Colias alfacariensis* Ribbe, 1905 or *C. australis* Verity, 1911, with *australis* having been used perhaps slightly more often; Reissinger's recent checklist (1989, pp. 164–166, 181) uses *alfacariensis*. There is no doubt that both names refer to the taxon which was described as a full species by Berger (1945, p. 33), who wrote that '*Colias alfacariensis* RIBBE connue jusqu'à présent sous le nom de *Colias hyale* L. race *calida* VTY., nouvelle pour la science, est une bonne espèce... Le nom d'*alfacariensis* RIBBE étant plus ancien que celui de *calida* VTY. doit désigner la nouvelle espèce'. Under Article 10c the name *alfacariensis* Berger, 1945 (rather than 1948, as proposed by Dr Kudrna) is available, but probably not valid for reasons of priority. Five years later, having been advised (but on mistaken grounds; see BZN **45**: 30, para. 7) by F. Hemming that *alfacariensis* Ribbe, 1905 was unavailable, Berger adopted *australis* Verity, 1911; unfortunately this name also suffers from the drawbacks discussed in the application and the comments above, and the subsequent confusion began.

It is high time that this situation, which is entirely a matter of nomenclatural niceties, is resolved. For reasons of both early date and usage it seems extremely desirable that either *alfacariensis* Ribbe, 1905 or *australis* Verity, 1911 should be adopted as the nomenclaturally valid name; any other choice (for example, *calida* Verity, 1916 or Verity & Querci, 1923; *alfacariensis* Bubaček, 1924 or Berger, 1945) would introduce fresh argument and instability.

The original application (BZN **45**: 29–32) did not explicitly ask the Commission to set aside the Code's provisions in this case. This is necessary to fix the status of either *alfacariensis* Ribbe, 1905 or *australis* Verity, 1911, and I propose that the Commission should use its plenary powers to rule that one or the other of these two names is to be deemed available.

Additional reference

Reissinger, E.J. 1989. Checkliste Pieridae DUPONCHEL, 1835 (Lepidoptera) der Westpalaearktis (Europa, Nordwestafrika, Kaukasus, Kleinasien). *Atalanta*, **20**: 149–185.

Comments on the proposed conservation of *heraclei* as the correct spelling for the specific name of *Musca heraclii* Linnaeus, 1758 (Insecta, Diptera)

(Case 2719; see BZN **46**: 252–254)

(1) F. Christian Thompson
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I oppose this application by White & Seymour. The application contains a number of errors:

(a) The original spelling has been used by other authors in addition to Linnaeus (for example, Müller, 1776, p. 173).

(b) *Musca heraclei* Fabricius, 1794 is not a subsequent use of *Musca heraclii* Linnaeus but a new and independent proposal for another species of fruit fly, now known as *Tephritis postica* (Loew, 1844).

(c) While '*heraclei*' is the correct genitive of *Heracleum*, the plant genus, '*heraclii*' is also a correct genitive. *Harper's Latin Dictionary* (1888 edition) includes two alternative spellings of the same Latin words referring to either the city Heraclea (*Heraclea* or *Heraclia*) or to the personage Hercules (*Heracleus* or *Heraclius*). As there is no evidence of what Linnaeus based his name on, I would not question Linnaeus's Latin derivation.

(d) If one does want to argue that Linnaeus incorrectly derived his name, then Loew's emendation (1844, p. 323) is valid.

(e) The first use of the spelling *heraclei* for *Musca heraclii* Linnaeus was by de Villers (1789, p. 507; see also Gmelin, 1790, p. 2858).

The difference in spelling between *heraclii* and *heraclei* is minimal. Hence, the standardization on the correct original spelling (*heraclii*) is unlikely to cause confusion. For economically important species which have common names, such as this species (celery fly), changes in scientific nomenclature cause virtually no confusion. For example, the cabbage root maggot, an important pest, was known for many years as *Anthomyia brassicae* Wiedemann (or Bouché). Pont (1981) showed that the proper specific name for the species was *radicum* Linnaeus. This radical change caused no confusion to at least the American community of economic entomologists as they use the common name exclusively. When needing to cite the scientific name, these entomologists merely use whatever is given in the most recent *Common Names of Insects and Related Organisms* list that is maintained by the Entomological Society of America. I believe the confusion caused by change in the spelling of *heraclii* will be even less and, hence, the proposed change is unjustified.

Additional references

Gmelin, J.F. 1790. *Caroli a Linné, Systema Naturae...* Ed. 13, vol. 1: *Regnum Animale*, pt. 5 (Insecta, pp. 2225–3020). Lipsiae.

Loew, H. 1844. Kritische Untersuchung der europäischen Arten des genus *Trypeta* Meig. *Zeitschrift für Entomologie (Germar)*, **5**: 312–437.

Müller, O.F. 1776. *Zoologiae Danicae prodromus, seu Animalium Daniae et Norvegiae indigenarum characteres, nomina, et synonyma imprimis popularium*. xxxii + 274 pp. Havniae.

Pont, A. 1981. The Linnaean species of the families Fanniidae, Anthomyiidae and Muscidae (Insecta, Diptera). *Biological Journal of the Linnean Society*, **15**: 165–175.

Villers, C.J. de. 1789. *Caroli Linnaei entomologia, faunae suecicae descriptionibus...*, vol. 3. ii + 657 pp., 4 pls. Lugduni.

(2) Ian M. White
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I should like to reply to Thompson's above remarks.

(a) Seymour and I did miss the fact that the spelling *heraclii* had been used by a few 18th century authors; Thompson has been unable to find any 20th, or even 19th, century authors who used any spelling other than *heraclei*, and the purpose of this case is to reject that purely 18th century spelling of this pest of celery.

(b) Fabricius (1794) does not make it clear that his *Musca heraclei* is a new species, although he does not mention Linnaeus. Fabricius redescribed other Linnaean species, and it is likely that he was doing so in this case and failed to mention Linnaeus; there is no proof either way. This doubt over what Fabricius was describing was noted in the application (BZN **46**: 252, para. 2). The Fabricius collection was not consulted as this appears to be a peripheral issue to the established use of the non-Linnaean spelling. Thompson notes that the *heraclei* of Fabricius is now interpreted as *Tephritis postica* (Loew), a species associated with *Onopordon* (Asteraceae or Compositae). Fabricius named several tephritids after plants which are known to be hosts of monophagous or oligophagous species. Each of these tephritids has subsequently been interpreted as a species that attacks a different plant family to the plant genus from which the Fabrician name clearly derives. Fabricius described a *Musca onopordinis*, now interpreted as a synonym of *Euleia heraclei* (Linnaeus), which attacks *Heracleum* and related genera; conversely, his *Musca heraclei* is now interpreted as *T. postica* which attacks *Onopordon*. The description of *M. onopordinis* even refers to 'Carduis', presumably meaning a thistle such as *Onopordon* sp. This apparent reversal of Fabrician names suggests that even when specimens exist in the Fabricius collection it is likely that they have been placed against the wrong names by some post-Fabricius worker (this is known to have happened to the Linnaean collection). As there is no way of proving what Fabricius was describing, the simplest course is to assume that Fabricius was re-describing the Linnaean *heraclii* but with a modified spelling.

(c) There is evidence of the Latin derivation used by Linnaeus, as he clearly states '*Habitat in foliis*, Heraclii; *subcutanea*', meaning below the leaf cuticle of 'Heraclii'. Although it is possible for 'Heraclii' to refer to the city Herculea or to the personage of Hercules, they are unlikely candidates for leaf mining!

(d) We have not argued that Linnaeus incorrectly derived his name, only that the rule of original spelling being correct be set aside in the interest of stability.

(e) We accept that some other 18th century workers used the spelling *heraclei* before Fabricius (1794), in which case we need not worry about what Fabricius meant by *heraclei*.

The difference between the spelling *heraclii* and *heraclei* is minimal and the issue need not have been raised were it not for the confusion being caused by a recent catalogue which introduced an erroneous spelling '*heracleii*'. Thompson refers to another economically important species in which a complete change of specific name occurred; we suspect that such a complete change of name is more readily accepted by applied entomologists than a small change in spelling.

We do not wish to change our application as a result of Thompson's comments.

Comments on the proposed conservation of *Physcus* Howard, 1895 (Insecta, Hymenoptera) by the suppression of *Coccobius* Ratzeburg, 1852

(Case 2629; see BZN **45**: 288–291; **46**: 132–134)

(1) Gary Gibson & John Huber
Biosystematics Research Centre, Agriculture Canada, Ottawa, Ontario K1A 0C6, Canada

We are writing to support the comment by LaSalle & Bouček (BZN **46**: 132–134) opposing the suppression of *Coccobius* Ratzeburg, 1852 in favour of *Physcus* Howard, 1895, as requested by Rosen, Rivnay & Viggiani (BZN **45**: 288–291).

We can add little to the logical argument presented by LaSalle & Bouček for retention of *Coccobius*. We feel strongly that nomenclatural stability and universality are achieved through the Principle of Priority based on sound taxonomic reasoning and compliance with the rules established in the Code. Gahan & Fagan (1923) validly designated *Coccobius annulicornis* Ratzeburg as the type species of *Coccobius*, and the designation of a neotype for *C. annulicornis* by LaSalle & Bouček definitively clarifies the application of this name. Suppression of *Coccobius* in favour of *Physcus* would disrupt stability in nomenclature that has been achieved since Hayat (1983). For these reasons we do not support the application of Rosen, Rivnay & Viggiani to suppress *Coccobius*.

(2) Gennaro Viggiani
Dipartimento di Entomologia e Zoologia Agraria, Università degli Studi di Napoli, Via Università 100, 80055 Portici, Italy

Here are my reactions to the comment by LaSalle & Bouček (BZN **46**: 132–134). The above comment by Gibson & Huber adds nothing new to the case.

1. LaSalle & Bouček say that the proposed conservation of *Physcus* Howard, 1895 (BZN **45**: 288–291) 'would do more to disrupt stability than to promote it'. This is not true. Hayat (1984) stated 'The genus *Coccobius* Ratzeburg (till recently as *Physcus*; but see Hayat, 1983) contains 58 species'. *Coccobius* Ratzeburg, 1852 was absolutely ignored in taxonomy and in applied entomology until 1983. Bouček had himself used *Physcus* and not *Coccobius*.

2. The Principle of Priority 'is to be used to promote stability and is not intended to be used to upset a long accepted name in its accustomed meaning through the introduction of an unused name that is its senior synonym' (Article 23b of the Code). The proposal by LaSalle & Bouček would cause just such an upset.

3. All the arguments by LaSalle & Bouček in favour of the resurrection of *Coccobius* are based on 'personal communications' and on a specimen in the Natural History Museum, London, from Novitzky's collection said to have been compared long ago with the type of *Coccobius annulicornis*. When Hayat (1983) studied this specimen it 'was on a card with the antennae missing and the head partly eaten by psocids'. Now, according to LaSalle & Bouček, the same specimen 'fortunately' is accompanied by one of the antennae.

4. The subsequent action by LaSalle & Bouček to sink in synonymy (just in their comment) a well-known species, *Physcus testaceus* Masi, 1910, treated in a great number of papers, demonstrates how they produce 'stability'. They use the rather satisfactory description of a well-known species to recognize in a specimen, or rather the remains of a specimen, a senior synonym. They do not give a redescription, but simply replace *Physcus testaceus* with a newly defined '*Coccobius annulicornis* Ratzeburg'. The purported designation by LaSalle & Bouček of a 'neotype' of *Coccobius annulicornis* is completely contrary to Article 75b of the Code.

5. LaSalle & Bouček say (BZN **46**: 133, para. 10) 'As the name *Coccobius* is shown to have both its usage and its identity established, and as Rosen et al. have not provided sufficient evidence to support their proposal to suppress *Coccobius* in favour of *Physcus*...'. This gives a completely false impression. LaSalle & Bouček (para. 8) give only five references for the use of *Coccobius*, three of which are by Hayat. On the other hand, *Physcus* has been used by many aphelinid workers, including Annecke, Compere, De Bach, De Santis, Ferrière, Flanders, Howard, Masi, Nikol'skaya, Silvestri and Yasnosh. [The Commission Secretariat has a list of 85 references besides those cited in the application.]

6. I invite those interested in the APHELINIDAE and in biological control to give their views to the Commission.

(3) David Rosen
Faculty of Agriculture, The Hebrew University of Jerusalem, Rehovot 76–100, P.O. Box 12, Israel

I should like to reply to the objection to the conservation of *Physcus* Howard, 1895, as proposed by Rivnay, Viggiani and myself, which has been made by LaSalle & Bouček (BZN **46**: 132–134).

LaSalle & Bouček 'contend that the suppression of the name *Coccobius* would disrupt stability rather than promote it'. I am afraid that this statement is entirely incomprehensible to me. All they tell us is that a damaged specimen has been found, that one of its missing antennae has been located, and that 'a reasonable assumption' can be made as to its identity, and that this, in the absence of type material, should be regarded as sufficient grounds for synonymizing the well-known generic name *Physcus* under *Coccobius*. They conveniently ignore the fact, clearly demonstrated in our application, that the name *Coccobius* was misinterpreted — and unused — for nearly a century and a half, whereas the name *Physcus* was clearly interpreted and in constant use for most of that period. Even if *Coccobius* is unequivocally recognized as a senior synonym of *Physcus*, how on earth would its resurrection promote nomenclatural stability?

LaSalle & Bouček claim that the name *Coccobius* 'has been used in systematic and biological control literature', but in support of this statement they cite only five publications, all of them subsequent to Hayat's resurrection of *Coccobius*, and three of them by Hayat himself. Where was this name from, say, 1895 to 1983? We, on the other hand, have presented the Commission Secretariat with a partial list including scores of publications — some biological, many systematic, several dealing with biological control — that have all used the name *Physcus*, and this list can be easily doubled.

LaSalle & Bouček go on to state that 'Hayat's (1983) work in which he re-established the name *Coccobius* is the first modern treatment of the APHELINIDAE...'. With all due respect, I have to disagree. Hayat's is a fine paper, but one cannot simply dismiss the earlier, excellent revisional work of De Santis, Nikol'skaya, Yasnosh, Compere, Ferrière and others, all of whom have used the generic name *Physcus*!

LaSalle & Bouček are, in effect, trying to take us back to a time when the Principle of Priority reigned supreme and the favorite pastime of some taxonomists was to unearth long-forgotten senior synonyms. The present Article 23b, emphasizing stability, was adopted for precisely this type of situation!

Of course, when a case is so ambiguous, one can always resort to a gimmick: Take the damaged specimen in question and designate it as neotype. This unnecessary proposal is not justified by the evidence, does not solve any systematic or nomenclatural problem, and does not serve any purpose but for winning an argument. For the sake of nomenclatural stability, the Commission is hereby requested to reject it and let *Coccobius* rest in peace.

Finally, a word about 'sentimentality'. This is not the first time that I have been accused of advocating 'the maintenance of previously used names for sentimental reasons'. Why should the conservation of a well-known name be considered more 'sentimental' than the resurrection of an old, forgotten name? Let us leave sentimentality aside and concentrate on the rational, scientific aspects of the problem.

The Commission has acted in favor of stability in many similar cases. To cite just two examples with which I have been personally familiar, the generic name *Sceptrophorus* Foerster, 1856 was suppressed in favor of *Microterys* Thomson, [1876] (Opinion 1110) and the specific name *albidus* Westwood, 1837 was suppressed in favor of *mytilaspidis* Le Baron, 1870 (Opinion 1405), although in both cases the types of the senior synonyms were available. I do hope that a similar decision will be made in this case.

In conclusion, I can only repeat what I wrote several years ago on a similar case (1985, BZN **42**: 215): 'Systematists, myself included, would of course not find it difficult to adapt [to the name change]... However, numerous field biologists all over the world, who do not read taxonomic papers unless they are forced to do so, would be confused... So, it is not out of sentimentality that I favor the junior synonym in this case. It is only out of my concern for the users of systematic information, and for the respect that they may or may not have for the science and practice of systematics, that I recommend the suppression of [the senior synonym]... In my opinion the careless replacement of well-established names by long-forgotten senior synonyms would only serve to deepen the unfortunate rift between field biologists and some systematists. For the sake of systematics, let us not alienate those who depend on us for a stable nomenclature'.

(4) John LaSalle
CAB International Institute of Entomology, 56 Queen's Gate, London SW7 5JR, U.K.

Our comment (BZN **46**: 132–134) is not intended to alienate or cause undue confusion with field biologists, biological control workers, or other non-systematists who rely on systematics for the provision of stable names (nor do we wish to alienate the authors of the proposal). However, systematics has rules which provide stability: these rules should be used where applicable, and stability will best be served when priority is overturned only in cases where the evidence presented is both overwhelming and timely (by waiting several years after the recognition of *Coccobius* before approaching the Commission, and thereby giving the name *Coccobius* time to become established in the literature, the authors have removed whatever valid arguments they might once have had).

This case is nothing more than a question of usage versus priority. The Code allows for the suppression of an unused senior synonym only in cases where the use of that name rather than a well accepted junior synonym would disturb stability or cause undue confusion. Even if one assumes that *Coccobius* is an unused name, which it no longer is, this case does not rest on impassioned pleas or lists of works using the name *Physcus* in the past, but simply on the assumption that use of *Coccobius* would disturb stability and cause confusion. Such an assumption is contradicted by facts: since *Coccobius* was recognized in 1983, far more references have used the name *Coccobius* than *Physcus*.

I have deposited with the Commission Secretariat a list of 24 references published since 1983 and using the name *Coccobius* in its currently recognized sense. This list contains works by over 30 authors from nine countries, and includes catalogues, keys, studies on biological control, biology, systematics, a data base of natural enemies, and a list of preferred names of economic insects. It appears to me that there is no question here; at the present time both priority and usage favor *Coccobius*.

Comment on the need for stability in fish family-group names

(See BZN **47**: 97–100)

Nigel Merrett
The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

I fully endorse Mr Wheeler's view that changes to family-group names for purely grammatical reasons, such as those proposed by Steyskal (1980), may have unfortunate and wide-ranging implications for stability. I support his call for the establishment of a specialist committee on fish nomenclature to give guidance on the most pragmatic solution to such proposals.

Comments on the proposed confirmation of *Muraena helena* Linnaeus, 1758 as the type species of *Muraena* Linnaeus, 1758 (Osteichthyes, Anguilliformes), so conserving *Anguilla*

(Case 1173; see BZN **46**: 259–261)

(1) Alwyne Wheeler
Epping Forest Conservation Centre, High Beach, Loughton, Essex IG10 4AF, U.K.

The generic name *Anguilla* dates not from Shaw (1803, p. 15) as stated, but from Schrank (1798, pp. 304, 307). This fact has been cited by authors including Blache et al. (1973, pp. 220–222). The type species by monotypy is *Muraena anguilla* Linnaeus, 1758.

The use of the specific name *vulgaris* by Shaw was clearly (not 'possibly' as in the application) to avoid tautonymy following the Linnaean precepts of taxonomy which were later encoded in the Strickland Code of Nomenclature in Zoology (Strickland, 1842). Although the avoidance of tautonymy was not encoded until that date it was shunned by adherents of the Linnaean system of nomenclature in accordance with the aphorisms set out in Linnaeus's *Critica Botanica* (see Hort, 1938). For discussion of the nomenclature of fishes with the specific name *vulgaris* see Wheeler (1988).

References

Blache, J., Bauchot, M.-L. & Saldanha, L. 1973. *In* Hureau, J.C. & Monod, T. (Eds.), *Check-list of the fishes of the north-eastern Atlantic and of the Mediterranean*, vol. 1, xxii, 683 pp. UNESCO, Paris.
Hort, A. 1938. *The 'Critica Botanica' of Linnaeus*. 239 pp. The Ray Society, London.
Schrank, F. von P. 1798. *Fauna Boica*, vol. 1, part 2. xii, 720 pp. Nürnberg.
Strickland, H.E. 1842. Report of a Committee appointed 'to consider of the Rules by which the Nomenclature of Zoology may be established on a uniform and permanent basis'. *Report of the British Association for the Advancement of Science*, **1842**: 105–121.
Wheeler, A. 1988. The nomenclature of the sole, *Solea solea* (Linnaeus, 1758). *Journal of Fish Biology*, **33**: 489–490.

(2) F. Christian Thompson
Systematic Entomology Laboratory, USDA, Washington, D.C., U.S.A.

No action by the Commission is required to conserve the name *Muraena* Linnaeus in its accustomed usage as in 1827 Bory de Saint-Vincent (p. 305) designated *Muraena helena* Linnaeus as type species. This designation is much earlier than Bleeker's.

Reference

Bory de Saint-Vincent, J.B.G.M. 1827. *In* Audouin, [J.V.] *et al.* (Eds.), *Dictionnaire classique d'Histoire Naturelle*, vol. 11. 615 pp. Rey & Gravier, Paris.

(3) Ruth A. Cooper
Secretariat, The International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London, SW7 5BD, U.K.

This case is thus resolved without need for action by the Commission. In the light of the above comments, the following information is given on the genera and species involved.

Anguilla Schrank, 1798 (p. 304), type species by monotypy *Muraena anguilla* Linnaeus, 1758 (p. 245).

Muraena Linnaeus, 1758 (p. 244), type species by subsequent designation by Bory de Saint-Vincent (1827, p. 305) *Muraena helena* Linnaeus, 1758 (p. 244).

Further comment on the proposed suppression for nomenclature of three works by R.W. Wells and C.R. Wellington

(Case 2531; see BZN **44**: 116–121, 257–261; **45**: 52–54, 145–153, 216)

P. Bouchet, R. Bour, A. Dubois, D. Goujet, J.P. Hugot, J. Pierre & S. Tillier
Muséum national d'Histoire naturelle, 75005 Paris, France

The recently published *Contributions to the History of Herpetology* (Adler, 1989) contains an *Index of Authors in Taxonomic Herpetology* compiled by John S. Applegarth. We quote the following paragraph from the introduction to this Index:

> '*Note.* — It is the personal opinion of the compiler that the methods and recent writings of Richard W. Wells and C. Ross Wellington are inconsistent with acceptable practices of taxonomy, and that such writings should be rejected by the International Commission on Zoological Nomenclature. Therefore Mr Wells and Mr Wellington are not included in this compilation. For further opinions on this matter see *Herpetological Review*, **16**: 4–7 and 69, and *Australian Entomological Society News Bulletin*, **21**: 66–69.'

We are outraged by this attitude, which is best compared with the Stalinist falsification of history. Such statements demonstrate that the 'anti- Wells & Wellington' group of persons will not be satisfied with a rejection by the Commission of their works: their names should also disappear from the History of Herpetology. In the next step will we be told that Wells and Wellington have simply never existed? Or perhaps they should be physically eliminated using an ice-pick?

We therefore urge the Commission to reject the application to suppress the works by Wells & Wellington for the very reasons that some of us have expressed earlier (BZN **45**: 146–149; *The Australian Herpetologist*, **528**: 1–5).

Reference

Adler, K. 1989. Contributions to the History of Herpetology. *Contributions to Herpetology*, **5**: 1–202.

OPINION 1587

Orbitolina d'Orbigny, 1850 (Foraminiferida): *Orbulites concava* Lamarck, 1816 confirmed as the type species

Ruling

(1) Under the plenary powers all designations of type species for the nominal genus *Orbitolina* d'Orbigny, 1850 prior to that of *Orbulites concava* Lamarck, 1816 by Davies (1939) are hereby set aside.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Orbitolina* d'Orbigny, 1850 (gender: feminine), type species by designation by Davies (1939) *Orbulites concava* Lamarck, 1816 as confirmed under the plenary powers in (1) above;
- (b) *Palorbitolina* Schroeder, 1963 (gender: feminine), type species by monotypy *Madreporites lenticularis* Blumenbach, 1805.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *concava* Lamarck, 1816, as published in the binomen *Orbulites concava* (specific name of the type species of *Orbitolina* d'Orbigny, 1850);
- (b) *lenticularis* Blumenbach, 1805, as published in the binomen *Madreporites lenticularis* (specific name of the type species of *Palorbitolina* Schroeder, 1963).

History of Case 2663

An application for the confirmation of *Orbulites concava* Lamarck, 1816 as the type species of *Orbitolina* d'Orbigny, 1850 was received from Prof R. Schroeder (*Universität Frankfurt, Frankfurt a. M., Fed. Rep. Germany*) & Mr M. Simmons (*BP Research Centre, Sunbury-on-Thames, U.K.*) on 4 May 1988. After correspondence the case was published in BZN **45**: 254–257 (December 1988). Notice of the case was sent to appropriate journals. No comments were received. With reference to para. 3 (p. 254) of the application, it might be clearer to say that the expressions 'specific type' and 'type' of Parker & Jones (1860, p. 35) mean simply 'species', rather than 'typical form of a species'; as stated in the application Parker & Jones did not designate a type species for *Orbitolina*.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 256. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No votes were received from Bayer and Starobogatov.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

concava, Orbulites, Lamarck, 1816, *Histoire naturelle des animaux sans vertèbres*, vol. 2, p. 197.

lenticularis, Madreporites, Blumenbach, 1805, *Abbildungen naturhistorischer Gegenstände*, Heft 8, no. 80.

Orbitolina d'Orbigny, 1850, *Prodrome de Paléontologie stratigraphique universelle des animaux mollusques & rayonnés faisant suite au cours élémentaire de Paléontologie et de Géologie stratigraphiques*, vol. 2, p. 143.

Palorbitolina Schroeder, 1963, *Neues Jahrbuch für Geologie und Paläontologie Abhandlungen*, **117**: 348.

OPINION 1588

Hapalorhynchus beadlei Goodman, 1987 (Trematoda, Digenea): holotype replaced by a lectotype

Ruling

(1) Under the plenary powers the holotype of *Hapalorhynchus beadlei* Goodman, 1987 is hereby set aside.

(2) The specimen illustrated in Fig. 1 of Goodman (1987) is hereby designated as the lectotype of *Hapalorhynchus beadlei*, with the type locality 'near Kampala, Uganda' and the host '*Pelusios* sp.'.

(3) The name *beadlei* Goodman, 1987, as published in the binomen *Hapalorhynchus beadlei* and as defined by the lectotype designated in (2) above, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2653

An application for the replacement of the holotype by a lectotype of *Hapalorhynchus beadlei* Goodman, 1987 was received from Dr T.R. Platt (*Saint Mary's College, Notre Dame, Indiana, U.S.A.*) on 6 April 1988. After correspondence the case was published in BZN **45**: 258–259 (December 1988). Notice of the case was sent to appropriate journals. No comments were received. It was noted on the voting papers that the application had the support of Dr J.D. Goodman, the author of *H. beadlei*.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 258–259. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Lehtinen (in part), Macpherson, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Uéno, Willink

Negative votes — 2: Kraus and Mahnert.

No votes were received from Starobogatov and Trjapitzin.

Kraus considered that the taxonomic status of *Hapalorhynchus beadlei* was at present too confused to warrant action by the Commission. Two members of the Commission suggested that the proposed type specimen could be a neotype but not a lectotype, since a holotype had been designated previously. This is not the case, however, since the Commission has, using its plenary powers, set aside the previous holotype (which differed from the published description and figure of *H. beadlei*).

Original reference

The following is the original reference to the name placed on an Official List by the ruling given in the present Opinion:

beadlei, Hapalorhynchus, Goodman, 1987, *Transactions of the American Microscopical Society*, **106**: 80.

OPINION 1589

Phyllodoce (Carobia) rubiginosa Saint-Joseph, 1888 (currently also *Nereiphylla rubiginosa*; Annelida, Polychaeta): specific name conserved

Ruling

(1) Under the plenary powers the specific name *breviremis* de Quatrefages, 1865, as published in the binomen *Phyllodoce breviremis*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *rubiginosa* Saint-Joseph, 1888, as published in the combination *Phyllodoce (Carobia) rubiginosa*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *breviremis* de Quatrefages, 1865, as published in the binomen *Phyllodoce breviremis* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2633

An application for the conservation of *Phyllodoce (Carobia) breviremis* de Quatrefages, 1865 (a marine paddle worm) was received from Dr F. Pleijel (*University of Stockholm, Stockholm, Sweden*) on 30 December 1987. After correspondence the case was published in BZN **45**: 260–261 (December 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 260. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 18: Bock, Cocks, Cogger, Corliss, Halvorsen, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Uéno, Willink

Negative votes — 9: Bayer, Dupuis, Hahn, Heppell, Holthuis, Kabata, Macpherson, Mroczkowski and Trjapitzin.

No vote was received from Starobogatov.

Bayer, Hahn, Mroczkowski and Nye would have preferred giving *rubiginosa* Saint-Joseph, 1888 precedence over *breviremis* de Quatrefages, 1865 to the suppression of the latter name. Heppell considered insufficient evidence had been presented (or probably existed) to depart from priority. Dupuis drew attention to the existence of a type specimen for *breviremis* but not for *rubiginosa*.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

breviremis, Phyllodoce, de Quatrefages, 1865, *Histoire Naturelle des Annelés Marins et d'Eau Douce*, vol. 2, p. 132.

rubiginosa, Phyllodoce (Carobia), Saint-Joseph, 1888, *Annales des Sciences Naturelles (Zoologie)*, (7)**5**: 282.

OPINION 1590

Pleuromma princeps Scott, 1894 (currently *Gaussia princeps*; Crustacea, Copepoda): specific name conserved

Ruling

(1) Under the plenary powers:

(a) it is hereby ruled that the specific name *princeps* Scott, 1894, as published in the binomen *Pleuromma princeps*, is not invalid by reason of its having been rejected before 1961 as a former secondary homonym of *Metridia princeps* Giesbrecht, 1889;

(b) the specific name *melanotica* Wolfenden, 1905, as published in the binomen *Gaussia melanotica*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(c) all previous fixations of type species for the nominal genus *Gaussia* Wolfenden, 1905 are hereby set aside and *Pleuromma princeps* Scott, 1894 is designated as type species.

(2) The name *Gaussia* Wolfenden, 1905 (gender: feminine), type species designated in (1)(c) above *Pleuromma princeps* Scott, 1894, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *princeps* Scott, 1894, as published in the binomen *Pleuromma princeps* (specific name of the type species of *Gaussia* Wolfenden, 1905), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *melanotica* Wolfenden, 1905, as published in the binomen *Gaussia melanotica* and as suppressed in (1)(b) above;

(b) *scotti* Giesbrecht, 1897, as published in the binomen *Metridia scotti*, a junior objective synonym of *princeps* Scott, 1894, as published in the binomen *Pleuromma princeps*, by effect of the ruling in (1)(a) above.

History of Case 2622

An application for the conservation of the specific name of *Pleuromma princeps* Scott, 1894 was received from Dr K. Hulsemann (*Biologische Anstalt Helgoland, Hamburg, Fed. Rep. Germany*) on 1 September 1987. After correspondence the case was published in BZN **45**: 188–190 (September 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 189, with an additional proposal on the voting paper to set aside all previous fixations of type species for *Gaussia* Wolfenden, 1905 and to designate *Pleuromma princeps* Scott, 1897 as the type. It was emphasised that this involved no change in the effect of the proposals as published, but would achieve a more clearly worded ruling. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Corliss, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson (in part), Trjapitzin, Uéno, Willink

Negative votes — 3: Cogger, Dupuis and Holthuis.

No vote was received from Starobogatov.

Holthuis did not see that use of the name *scotti* Giesbrecht, 1897 for Scott's species would cause any confusion. Thompson supported the conservation of the name *princeps* Scott, 1894, but said that the suppression of *melanotica* Wolfenden, 1905 was not needed.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Gaussia Wolfenden, 1905, *Plankton Studies*, part 1, p. 5.

melanotica, Gaussia, Wolfenden, 1905, *Plankton Studies*, part 1, p. 5.

princeps, Pleuromma, Scott, 1894, *Transactions of the Linnean Society of London*, Zoological Series, **6**: 42.

scotti, Metridia, Giesbrecht, 1897, *Zoologischer Anzeiger*, **20**: 254.

OPINION 1591

Fizesereneia Takeda & Tamura, 1980 (Crustacea, Decapoda): *Troglocarcinus heimi* Fize & Serène, 1956 confirmed as the type species

Ruling

(1) It is hereby confirmed that the type species of the nominal genus *Fizesereneia* Takeda & Tamura, 1980 is *Troglocarcinus heimi* Fize & Serène, 1956.

(2) The name *Fizesereneia* Takeda & Tamura, 1980 (gender: feminine), type species as confirmed in (1) above *Troglocarcinus heimi* Fize & Serène, 1956, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *heimi* Fize & Serène, 1956, as published in the binomen *Troglocarcinus heimi* (specific name of the type species of *Fizesereneia* Takeda & Tamura, 1980) is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2636

An application for the confirmation of *Troglocarcinus heimi* Fize & Serène, 1956 as the type species of *Fizesereneia* Takeda & Tamura, 1980 was received from Dr R.K. Kropp (*Ocean Sciences-Ventura Operations, Ventura, California, U.S.A.*) on 12 January 1988. After correspondence the case was published in BZN **45**: 262–263 (December 1988). Notice of the case was sent to appropriate journals. No comments were received. It was noted on the voting paper that the species *heimi* Fize & Serène is described on p. 378.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 262. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No votes were received from Bayer and Starobogatov.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Fizesereneia Takeda & Tamura, 1980, *Bulletin of the National Science Museum, Tokyo*, (A)**6**: 137.

heimi, *Troglocarcinus*, Fize & Serène, 1956, *Bulletin de la Société Zoologique de France*, **80**(5,6): 378.

OPINION 1592

Bodotria Goodsir, 1843 (Crustacea, Cumacea): conserved

Ruling

(1) Under the plenary powers the name *Cuma* H. Milne Edwards, 1828 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Bodotria* Goodsir, 1843 (gender: feminine), type species by monotypy *Bodotria arenosa* Goodsir, 1843, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *arenosa* Goodsir, 1843, as published in the binomen *Bodotria arenosa* (specific name of the type species of *Bodotria* Goodsir, 1843), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name BODOTRIIDAE Scott, 1901 (type genus *Bodotria* Goodsir, 1843) is hereby placed on the Official List of Family-Group Names in Zoology.

(5) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Cuma* H. Milne Edwards, 1828, as suppressed in (1) above;

(b) *Cuma* Humphrey, 1797 (included in a work rejected for nomenclatural purposes).

History of Case 2645

An application for the conservation of *Bodotria* Goodsir, 1843 was received from Drs M. Bacescu (*Muzeul National de Istorie Naturala 'Grigore Antipa', Bucuresti, Romania*) & L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 22 February 1988 and published in BZN **45**: 264–266 (December 1988). Notice of the case was sent to appropriate journals. No comments were received. Dr Holthuis (*in litt.* to the Commission Secretariat, 17 April 1988) stated that the last use of the name *Cuma* for any species of *Bodotria* was in 1903, and that for the first four species (of the 32 known) which are listed in the *Bodotria* section of *Crustaceorum Catalogus* (1988) there are 23 authors with 37 papers within the last 50 years.

Additional reference

Bacescu, M. 1988. Genus *Bodotria*. Pp. 34–49 *in* Gruner, H.E. & Holthuis, L.B. (Eds.), *Crustaceorum Catalogus*. Part 7. Cumacea 1 (Families Archaeocumatidae, Lampropidae, Bodotriidae, Leuconidae). 173 pp. SPB Academic Publishing, The Hague.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 265. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 23: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Nye, Ride, Schuster, Thompson, Uéno, Willink

Negative votes — 4: Lehtinen, Mroczkowski, Savage and Trjapitzin.
No vote was received from Starobogatov.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

arenosa, Bodotria, Goodsir, 1843, *Edinburgh New Philosophical Journal*, **34**: 128.
Bodotria Goodsir, 1843, *Edinburgh New Philosophical Journal*, **34**: 128.
BODOTRIIDAE Scott, 1901, *Annual Report of the Fishery Board for Scotland*, **19**: 273.
Cuma Humphrey, 1797, *Museum Calonnianum*, p. 35.
Cuma H. Milne Edwards, 1828, *Annales des Sciences Naturelles*, Paris (1)**13**: 287.

OPINION 1593

Iphinoe Bate, 1856 (Crustacea, Cumacea): conserved

Ruling

(1) Under the plenary powers the following names are hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy:
- (a) *Iphinoe* Rafinesque, 1815;
- (b) *Iphinoe* H. & A. Adams, 1854;
- (c) any use of the name *Iphinoe* prior to *Iphinoe* Bate, 1856.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:
- (a) *Iphinoe* Bate, 1856 (gender: feminine), type species by monotypy *Cuma trispinosa* Goodsir, 1843;
- (b) *Uroctea* Dufour, 1820 (gender: feminine), type species by monotypy *Uroctea quinquemaculata* Dufour, 1820.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:
- (a) *quinquemaculata* Dufour, 1820, as published in the binomen *Uroctea quinquemaculata* (specific name of the type species of *Uroctea* Dufour, 1820);
- (b) *trispinosa* Goodsir, 1843, as published in the binomen *Cuma trispinosa* (specific name of the type species of *Iphinoe* Bate, 1856).

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
- (a) *Iphinoe* Rafinesque, 1815, as suppressed in (1)(a) above;
- (b) *Iphinoe* H. & A. Adams, 1845, as suppressed in (1)(b) above;
- (c) *Halia* Bate, 1856 (a junior homonym of *Halia* Risso, 1826);
- (d) *Venilia* Bate, 1856 (a junior homonym of *Venilia* Duponchel, 1829).

History of Case 2643

An application for the conservation of *Iphinoe* Bate, 1856 was received from Drs M. Bacescu (*Muzeul National de Istorie Naturala 'Grigore Antipa', Bucuresti, Romania*) & L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 22 February 1988 and published in BZN **45**: 267–269 (December 1988). Notice of the case was sent to appropriate journals. Comments in support from two mollusc specialists, Anders Warén (*Naturhistoriska Riksmuseet, Stockholm, Sweden*) and Richard S. Houbrick (*National Museum of Natural History, Washington, U.S.A.*), were published in BZN **46**: 190–191 (September 1989). Dr Warén pointed out that the replacement name *Neoiphinoe* Habe, 1978 is available for *Iphinoe* H. & A. Adams, 1854 (even though proposed because of a mistaken priority assumption; cf. para. 6 of the application).

Norman's (1869) first reviser action (para. 3 of the application) gave Bate's *Iphinoe* precedence over *Cyrianassa* Bate, 1856; the former name is thus nomenclaturally valid as its senior homonyms have been suppressed.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 268–269. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen (in part), Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Mroczkowski.

No vote was received from Starobogatov.

Lehtinen and Mroczkowski did not consider the suppression of the name *Iphinoe* H. & A. Adams to be justified.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Halia Bate, 1856, *Annals and Magazine of Natural History*, (2)**17**: 458.
Iphinoe Rafinesque, 1815, *Analyse de la Nature*, p. 107.
Iphinoe H. & A. Adams, 1854, *The genera of recent Mollusca arranged according to their organization*, vol. 1, p. 280.
Iphinoe Bate, 1856, *Annals and Magazine of Natural History*, (2)**18**: 187.
quinquemaculata, Uroctea, Dufour, 1820, *Annales générales des Sciences Physiques, Bruxelles*, **5**: 200.
trispinosa, Cuma, Goodsir, 1843, *Edinburgh New Philosophical Journal*, **34**: 126.
Uroctea Dufour, 1820, *Annales générales des Sciences Physiques, Bruxelles*, **5**: 198.
Venilia Bate, 1856, *Annals and Magazine of Natural History*, (2)**17**: 460.

OPINION 1594

Leucon Krøyer, 1846 (Crustacea, Cumacea): conserved

Ruling

(1) Under the plenary powers the name *Leucon* Schoenherr, 1834, and any use of that name prior to *Leucon* Krøyer, 1846, is hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.

(2) The name *Leucon* Krøyer, 1846 (gender: masculine), type species by subsequent designation by Sars (1879) *Cuma nasica* Krøyer, 1841, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *nasica* Krøyer, 1841, as published in the binomen *Cuma nasica* (specific name of the type species of *Leucon* Krøyer, 1846), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name LEUCONIDAE Sars, 1878 (type genus *Leucon* Krøyer, 1846) is hereby placed on the Official List of Family-Group Names in Zoology.

(5) The name *Leucon* Schoenherr, 1834 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2644

An application for the conservation of *Leucon* Krøyer, 1846 was received from Drs M. Bacescu (*Muzeul National de Istorie Naturala 'Grigore Antipa', Bucuresti, Romania*) & L.B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 22 February 1988 and published in BZN **45**: 270–271 (December 1988). Notice of the case was sent to appropriate journals. No comments were received. It was noted on the voting paper that *Leucon* Schoenherr is wrongly described in the Abstract of the application as a 'synonym' of *Leucon* Krøyer; this should have read 'homonym'.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 271. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No vote was received from Starobogatov.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Leucon Krøyer, 1846, *Naturhistorisk Tidsskrift*, n. ser., **2**: 208.

Leucon Schoenherr, 1834, *Genera et species Curculionidum cum synonymia hujus familiae*, vol. 2, part 1, p. 285.

LEUCONIDAE Sars, 1878, *Archiv for Mathematik og Naturvidenskab*, **3**: 466.

nasica, Cuma, Krøyer, 1841, *Naturhistorisk Tidsskrift*, (1)**3**: 524.

OPINION 1595

Aleuropteryx Löw, 1885 (Insecta, Neuroptera): *Aleuropteryx loewii* Klapálak, 1894 designated as the type species

Ruling

(1) Under the plenary powers all fixations of type species for the nominal genus *Aleuropteryx* Löw, 1885 are hereby set aside and *Aleuropteryx loewii* Klapálak, 1894 is designated as type species.

(2) The name *Aleuropteryx* Löw, 1885 (gender: feminine), type species by designation under the plenary powers in (1) above *Aleuropteryx loewii* Klapálak, 1894, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *loewii* Klapálak, 1894, as published in the binomen *Aleuropteryx loewii* (mandatory correction of *Löwii*; specific name of the type species of *Aleuropteryx* Löw, 1885), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name ALEUROPTERYGINAE Enderlein, 1905, type genus *Aleuropteryx* Löw, 1885, is hereby placed on the Official List of Family-Group Names in Zoology.

History of Case 2651

An application for the designation of *Aleuropteryx loewii* Klapálak, 1894 as the type species of *Aleuropteryx* Löw, 1885 was received from Drs J.D. Oswald (*Cornell University, Ithaca, New York, U.S.A.*) & M. Meinander (*Helsingfors Universitet, Helsingfors, Finland*) on 14 March 1988. After correspondence the case was published in BZN **45**: 272–274 (December 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 273. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Uéno, Willink

Negative votes — none.

No votes were received from Kabata, Starobogatov and Trjapitzin.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

ALEUROPTERYGINAE Enderlein, 1905, *Zoologischer Anzeiger*, **29**: 225.

Aleuropteryx Löw, 1885, *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften, Wien.* Mathematische-Naturwissenschaftlichen Klasse (Abt. 1), **91**: 79.

loewii, Aleuropteryx, Klapálak, 1894, *Entomologist's Monthly Magazine*, **30**: 122.

OPINION 1596

Semblis Fabricius, 1775 (Insecta, Trichoptera): *Phryganea phalaenoides* Linnaeus, 1758 conserved as the type species, thus conserving *Sialis* Latreille, 1802 (Insecta, Megaloptera)

Ruling

(1) Under the plenary powers all designations of type species for the nominal genus *Semblis* Fabricius, 1775 prior to that of *Phryganea phalaenoides* Linnaeus, 1758 by Van der Weele (1910) are hereby set aside.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:
- (a) *Semblis* Fabricius, 1775 (gender: feminine), type species by subsequent designation by Van der Weele (1910) *Phryganea phalaenoides* Linnaeus, 1758, as conserved in (1) above;
- (b) *Sialis* Latreille, 1802 (gender: feminine), type species by monotypy *Hemerobius lutarius* Linnaeus, 1758.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:
- (a) *phalaenoides* Linnaeus, 1758, as published in the binomen *Phryganea phalaenoides* (specific name of the type species of *Semblis* Fabricius, 1775);
- (b) *lutarius* Linnaeus, 1758, as published in the binomen *Hemerobius lutarius* (specific name of the type species of *Sialis* Latreille, 1802).

History of Case 2655

An application for the conservation of *Phryganea phalaenoides* Linnaeus, 1758 as the type species of *Semblis* Fabricius, 1775, thus conserving *Sialis* Latreille, 1802, was received from Dr J.D. Oswald (*Cornell University, Ithaca, New York, U.S.A.*) on 19 April 1988. After correspondence the case was published in BZN **45**: 275–277 (December 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 276. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No votes were received from Bayer and Starobogatov.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

lutarius, Hemerobius, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 550.

phalaenoides, Phryganea, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 547.
Semblis Fabricius, 1775, *Systema Entomologiae...*, p. 305.
Sialis Latreille, 1802, *Histoire naturelle, générale et particulière des Crustacés et des Insectes*, vol. 3, p. 290.

The following is the reference for the designation of *Phryganea phalaenoides* as the type species of *Semblis*:

Van der Weele, H.W. 1910. Megaloptera. *Collection Zoologiques du Baron Edm. de Selys Longchamps. Catalogue Systématique et Descriptif*, fasc. 5, p. 55.

OPINION 1597

Coryphium angusticolle Stephens, 1834 (Insecta, Coleoptera): generic and specific names conserved

Ruling

(1) Under the plenary powers the names *Harpognatus* Wesmael, 1833 and *robynsii* Wesmael, 1833, as published in the binomen *Harpognatus robynsii*, are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Coryphium* Stephens, 1834 (gender: neuter), type species by monotypy *Coryphium angusticolle* Stephens, 1834, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *angusticolle* Stephens, 1834, as published in the binomen *Coryphium angusticolle* (specific name of the type species of *Coryphium* Stephens, 1834), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Harpognatus* Wesmael, 1833, as suppressed in (1) above;

(b) *Harpognathus* Wesmael, 1834, an incorrect spelling of *Harpognatus* Wesmael, 1833.

(5) The name *robynsii* Wesmael, 1833, as published in the binomen *Harpognatus robynsii* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2627

An application for the conservation of both the generic and specific names *Coryphium angusticolle* Stephens, 1834 was received from Dr L. Zerche (*Institut für Pflanzenschutzforschung Kleinmachnow der Akademie der Landwirtschaftswissenschaften der DDR, Eberswalde-Finow, DDR*) on 2 October 1987 and published in BZN **45**: 197–198 (September 1988). Notice of the case was sent to appropriate journals. A comment in support from Dr M.K. Thayer (*Field Museum of Natural History, Chicago, U.S.A.*) was published in BZN **46**: 44 (March 1989).

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 197–198. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No vote was received from Starobogatov.

Martins de Souza abstained because of a reference indicating that *Coryphium* Stephens might have been published in 1832, which would have made the application redundant. The date 1834 is however correct.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

angusticolle, Coryphium, Stephens, 1834, *Illustrations of British Entomology, Mandibulata*, vol. 5, p. 344.

Coryphium Stephens, 1834, *Illustrations of British Entomology, Mandibulata*, vol. 5, p. 344.

Harpognathus Wesmael, 1834, *L'Institut (Journal général des Sociétés et Travaux scientifiques de la France et de l'Etranger)*, **2**(42): 76.

Harpognatus Wesmael, 1833, *Recueil Encyclopédique Belge*, p. 121.

robynsii, Harpognatus, Wesmael, 1833, *Recueil Encyclopédique Belge*, p. 121.

OPINION 1598

Ophonus Dejean, 1821 and *Tachys* Dejean, 1821 (Insecta, Coleoptera): *Carabus sabulicola* Panzer, 1796 and *Tachys scutellaris* Stephens, 1828 designated as the respective type species

Ruling

(1) Under the plenary powers:

(a) all previous designations of type species for the nominal genus *Ophonus* Dejean, 1821 are hereby set aside and *Carabus sabulicola* Panzer, 1796 is designated as type species;

(b) all previous designations of type species for the nominal genus *Tachys* Dejean, 1821 are hereby set aside and *Tachys scutellaris* Stephens, 1828 is designated as type species.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Ophonus* Dejean, 1821 (gender: masculine), type species by designation under the plenary powers in (1)(a) above *Carabus sabulicola* Panzer, 1796;

(b) *Tachys* Dejean, 1821 (gender: masculine), type species by designation under the plenary powers in (1)(b) above *Tachys scutellaris* Stephens, 1828.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *sabulicola* Panzer, 1796, as published in the binomen *Carabus sabulicola* (specific name of the type species of *Ophonus* Dejean, 1821);

(b) *scutellaris* Stephens, 1828, as published in the binomen *Tachys scutellaris* (specific name of the type species of *Tachys* Dejean, 1821).

History of Case 2585

An application for the designation of *Carabus sabulicola* Panzer, 1796 and *Tachys scutellaris* Stephens, 1828 as the respective type species of *Ophonus* Dejean, 1821 and *Tachys* Dejean, 1821 was received from Dr H. Silfverberg (*Universitetets Zoologiska Museum, Helsingfors, Finland*) on 7 November 1986. After correspondence the case was published in BZN **45**: 278–279 (December 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 278–279. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Heppell, Holthuis, Kabata, Kraus, Lehtinen (in part), Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No votes were received from Halvorsen and Starobogatov.

Lehtinen commented that the application did not give any reason for the retention of *Tachys* Dejean, 1821, and accordingly he voted against the proposals relating to that nominal genus [however, reference was made in the application to a relevant paper by Erwin (1974)].

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:
Ophonus Dejean, 1821, *Catalogue de la collection de Coléoptères de M. le Baron Dejean*, p. 13.
sabulicola, Carabus, Panzer, 1796, *Fauna Insectorum Germaniae initia*, part 30, p. 4.
scutellaris, Tachys, Stephens, 1828, *Illustrations of British Entomology, Mandibulata*, vol. 2, p. 5.
Tachys Dejean, 1821, *Catalogue de la collection de Coléoptères de M. le Baron Dejean*, p. 16.

OPINION 1599

Papilio carthami Hübner, [1813] and *Syrichthus serratulae major* Staudinger, 1879 (currently both in *Pyrgus*; Insecta, Lepidoptera): the specific names *carthami* and *major* conserved

Ruling

(1) Under the plenary powers the specific name *maior* Fabricius, 1787, as published in the trinomen *Papilio malvae maior*, and all uses of the name *maior* Fabricius, 1793, are hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *carthami* Hübner, [1813], as published in the binomen *Papilio carthami*;
(b) *major* Staudinger, 1879, as published in the trinomen *Syrichthus serratulae major*.

(3) The name *maior* Fabricius, 1787, as published in the trinomen *Papilio malvae maior* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2623

An application for the conservation of the specific names of the Skipper butterflies *Papilio carthami* Hübner, [1813] and *Syrichthus serratulae major* Staudinger, 1879 was received from Dr R. de Jong (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) on 7 September 1987. After correspondence the case was published in BZN **45**: 280–282 (December 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 281. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

No votes were received from Kabata and Starobogatov.

Dupuis abstained.

Thompson considered insufficient evidence had been provided to justify the suppression of the name *maior* Fabricius, 1787.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

carthami, Papilio, Hübner, [1813], *Sammlung europäischer Schmetterlinge*, vol. 1, pl. 143.
maior, Papilio malvae, Fabricius, 1787, *Mantissa insectorum*, vol. 2, p. 91.
major, Syrichthus serratulae, Staudinger, 1879, *Horae Societatis Entomologicae Rossicae*, **14**: 292.

OPINION 1600

Tachina orbata Wiedemann, 1830 (currently *Peribaea orbata*; Insecta, Diptera): neotype designation confirmed

Ruling

(1) It is hereby ruled that the specific name *orbata* Wiedemann, 1830, as published in the binomen *Tachina orbata*, is to be interpreted by reference to the specimen designated as neotype by Crosskey (1967).

(2) The name *orbata* Wiedemann, 1830, as published in the binomen *Tachina orbata* and as defined by the neotype designated by Crosskey (1967), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2632

An application for the confirmation of the designation of a neotype for *Tachina orbata* Wiedemann, 1830 was received from Drs R.W. Crosskey (*The Natural History Museum, London, U.K.*) & H. Shima (*Kyushu University, Fukuoka, Japan*) on 23 December 1987. After correspondence the case was published in BZN **45**: 199–201 (September 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 201. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Schuster, Thompson, Uéno, Willink

Negative votes — 1: Macpherson.

No votes were received from Starobogatov or Trjapitzin.

Savage abstained, as he did not consider any action necessary because the neotype designation had not been formally challenged.

Original reference

The following is the original reference to the name placed on an Official List by the ruling given in the present Opinion:

orbata, Tachina, Wiedemann, 1830, *Aussereuropäische zweiflügelige Insekten*, **2**: 336.

OPINION 1601

Rapport sur les Myodaires du Docteur Robineau Desvoidy (1826): suppressed for nomenclatural purposes

Ruling

(1) Under the plenary powers the following work is hereby suppressed for nomenclatural purposes:

Rapport sur les Myodaires du Docteur Robineau Desvoidy (H.M.D. de Blainville, Rapporteur), Académie Royale des Sciences de l'Institut de France, Paris, 1826.

(2) The above work, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature.

History of Case 2654

An application for the suppression of the *Rapport* ... was received from Dr C.W. Sabrosky (*USDA, c/o U.S. National Museum, Washington, DC, U.S.A.*) on 11 April 1988. After correspondence the case was published in BZN **45**: 283–287 (December 1988). Notice of the case was sent to appropriate journals. No comments were received, but the application was supported by a number of entomologists (see BZN **45**: 287, para. 10).

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 287. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

No vote was received from Starobogatov.

Dupuis commented that he had in 1963 published doubt concerning the valid publication of the *Rapport*.

Original reference

The following is the original reference to the work placed on an Official Index by the ruling given in the present Opinion:

Académie Royale des Sciences de l'Institut de France, 1826, *Rapport sur les Myodaires du Docteur Robineau Desvoidy* (H.M.D. de Blainville, Rapporteur), 24 pp., Paris.

OPINION 1602

Tenthredo zonula Klug, 1817 (Insecta, Hymenoptera): specific name conserved

Ruling

(1) Under the plenary powers the specific name *bicinctaflava* Christ, 1791, as published in the binomen *Tenthredo bicinctaflava*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *zonula* Klug, 1817, as published in the binomen *Tenthredo zonula*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *bicinctaflava* Christ, 1791, as published in the binomen *Tenthredo bicinctaflava* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2628

An application for the conservation of the specific name *Tenthredo zonula* Klug, 1817, was received from Dr A. Taeger (*Institut für Pflanzenschutzforschung Kleinmachnow der Akademie der Landwirtschaftswissenschaften der DDR, Eberswalde-Finow, DDR*) on 2 October 1987. After correspondence the case was published in BZN **45**: 202–203 (September 1988). Notice of the case was sent to appropriate journals. No comments were received. With reference to paras. 1 and 2 of the application it should be noted that both *bicinctaflava* Christ, 1791 and *zonula* Klug, 1817 are based in part on 'La mouche-à-scie à deux bandes jaunes' of Geoffroy (p. 275 in *Histoire abregée des Insectes qui se trouvent aux environs de Paris*, vol.2, 690 pp., pls. 11–22. Durand, Paris.).

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 203. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Uéno, Willink

Negative votes — none.

No votes were received from Starobogatov or Trjapitzin.

Original reference

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

bicinctaflava, Tenthredo, Christ, 1791, *Naturgeschichte, Klassification und Nomenclatur der Insekten vom Bienen, Wespen und Ameisengeschlecht*, p. 442.

zonula, Tenthredo, Klug, 1817, *Der Gesellschaft naturforschender Freunde zu Berlin Magazin für die neuesten Entdeckungen in der gesammten Naturkunde*, Berlin, **8**(1814): 137.

OPINION 1603

Saccopharynx Mitchill, 1824 (Osteichthyes, Saccopharyngiformes): conserved

Ruling

(1) Under the plenary powers it is hereby ruled that *Saccopharynx* Mitchill, 1824 is deemed to be the name of a then new nominal genus, and not a replacement name for *Stylephorus* Shaw, 1791.

(2) Under the plenary powers all previous type fixations for *Saccopharynx* Mitchill, 1824 are hereby set aside and *Saccopharynx flagellum* Cuvier, 1829 is hereby designated as the type species.

(3) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Saccopharynx* Mitchill, 1824 (gender: masculine), type species by designation in (2) above *Saccopharynx flagellum* Cuvier, 1829 (a junior subjective synonym of *Ophiognathus ampullaceus* Harwood, 1827);

(b) *Stylephorus* Shaw, 1791 (gender: masculine), type species by monotypy *Stylephorus chordatus* Shaw, 1791.

(4) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *ampullaceus* Harwood, 1827, as published in the binomen *Ophiognathus ampullaceus* (senior subjective synonym of the specific name of *Saccopharynx flagellum* Cuvier, 1829, the type species of *Saccopharynx* Mitchill, 1824);

(b) *chordatus* Shaw, 1791, as published in the binomen *Stylephorus chordatus* (specific name of the type species of *Stylephorus* Shaw, 1791).

(5) The following names are hereby placed on the Official List of Family-Group Names in Zoology:

(a) SACCOPHARYNGIDAE Bleeker, 1859 (type genus *Saccopharynx* Mitchill, 1824);

(b) STYLEPHORIDAE Swainson, 1839 (type genus *Stylephorus* Shaw, 1791).

History of Case 2625

An application for the conservation of *Saccopharynx* Mitchill, 1824 was received from Drs W.N. Eschmeyer (*California Academy of Sciences, San Francisco, California, U.S.A.*) & C.R. Robins (*University of Miami, Miami, Florida, U.S.A.*) on 14 September 1987 and published in BZN **45**: 204–206 (September 1988). Notice of the case was sent to appropriate journals. No comments were received.

Saccopharynx Mitchill, 1824 was, strictly speaking, originally a replacement name for *Stylephorus* Shaw, 1791 (cf. para. 2 of the application), although treated by all subsequent workers as a new nominal genus. The name *chordatus* cannot be used for Mitchill's *Saccopharynx* species under Article 49 of the Code and it never has been so used. Cuvier (1829, p. 355; para. 4 of the application) described the genus jointly under the two names *Saccopharynx* Mitchill and *Ophiognathus* Harwood. He referred to 'Le *Saccopharynx flagellum* de Mitchill' (sic), without mentioning *chordatus* for which (in its *Saccopharynx* sense) *flagellum* was evidently a replacement name. Of the species *Ophiognathus ampullaceus* Harwood, 1827 Cuvier wrote that while it might not be identical to *flagellum* it 'manifestement' belonged to the same genus. It is clear that *Saccopharynx flagellum* Cuvier, 1829 is the appropriate nominal type species. Subsequent workers have synonymised *flagellum* and *ampullaceus* and the latter name is treated as valid. As first submitted the application by Drs Eschmeyer & Robins did not include the suppression of *ampullaceus*, and proposals (1) and (6) on BZN **45**: 205 were withdrawn. Proposal (2) was also amended, and the proposals were given in their amended form on the voting papers. The amended proposals achieve the stabilisation of existing usage and the purpose of the published application.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 205, amended as noted above. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Macpherson, Mahnert, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Lehtinen.

No vote was received from Starobogatov.

Martins de Souza abstained.

Lehtinen considered that the name *Ophiognathus* Harwood, 1827 should be used instead of *Saccopharynx*, since the latter was published as a replacement name for *Stylephorus* Shaw, 1791.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

ampullaceus, Ophiognathus, Harwood, 1827, *Philosophical Transactions of the Royal Society of London*, **1827**: 51.

chordatus, Stylephorus, Shaw, 1791, *Philosophical Transactions of the Royal Society of London*, **1**: 90.

SACCOPHARYNGIDAE Bleeker, 1859, *Acta Societatis Scientiarum Indo Neerlandicae*, **6**: xxxiii.

Saccopharynx Mitchill, 1824, *Annals of the Lyceum of Natural History of New York*, **1**(1): 86.

STYLEPHORIDAE Swainson, 1839, *On the natural history and classification of fishes, amphibians and reptiles or monocardian animals*, vol. 2, p. 47.

Stylephorus Shaw, 1791, *Philosophical Transactions of the Royal Society of London*, **1**: 90.

OPINION 1604

ICHTHYOPHIIDAE Taylor, 1968 (Amphibia, Gymnophiona): conserved

Ruling

(1) Under the plenary powers the name *Epicrium* Wagler, 1828 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Ichthyophis* Fitzinger, 1826 (gender: masculine), type species by monotypy *Caecilia glutinosa* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *glutinosa* Linnaeus, 1758, as published in the binomen *Caecilia glutinosa* (specific name of the type species of *Ichthyophis* Fitzinger, 1826), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name ICHTHYOPHIIDAE Taylor, 1968 (type genus *Ichthyophis* Fitzinger, 1826) is hereby placed on the Official List of Family-Group Names in Zoology.

(5) The name *Epicrium* Wagler, 1828, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(6) The name EPICRIIDAE (published as 'Epicria') Fitzinger, 1843 (type genus *Epicrium* Wagler, 1828) (invalid because the name of the type genus is suppressed in (1) above) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

History of Case 2616

An application for the conservation of ICHTHYOPHIIDAE Taylor, 1968 was received from Drs M. Wilkinson & R.A. Nussbaum (*University of Michigan, Michigan, U.S.A.*) on 6 July 1987 and published in BZN **45**: 207–209 (September 1988). Notice of the case was sent to appropriate journals. A comment in support from Dr H.M. Smith (*University of Colorado at Boulder, Colorado, U.S.A.*) was published in BZN **46**: 134 (June 1989). It should be noted that *Caecilia glutinosa* Linnaeus, 1758 appears on p. 229 of *Systema Naturae* (Ed. 10, vol. 1), not p. 299 as stated in para. 1 of the application.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 208. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

No vote was received from Starobogatov.

Lehtinen and Schuster commented that the suppression of *Epicrium* Wagler, 1828 would avoid familial homonymy between caecilians and mesostigmatid mites. In the latter group EPICRIIDAE Berlese, 1885 is a well established family, based on *Epicrius* Canestrini & Fanzago, 1877. Thompson considered that there was no reason given to suppress *Epicrium*, and that it would have been possible to give ICHTHYOPHIIDAE precedence over EPICRIIDAE.

[Note by P.K. Tubbs. The status of family-group names derived from suppressed names of type genera requires further consideration by the Commission. In the present case *Epicrium* Wagler, 1828 has been suppressed 'but not for the purposes of the Principle of Homonymy', and its derived family name EPICRIIDAE Fitzinger, 1843 can no longer threaten junior synonyms such as ICHTHYOPHIIDAE Taylor, 1968. In order to protect the junior homonym EPICRIIDAE Berlese, 1885 mentioned by Drs Lehtinen and Schuster it is necessary that EPICRIIDAE Fitzinger be not just nomenclaturally invalid but that it be unavailable, i.e. that it ceases to have any status in nomenclature. Automatic suppression of family name availability would be desirable in this case, and probably should apply to most if not all cases where the name of a type genus is, or has been, suppressed by the Commission using its plenary powers. Pending consideration of this, EPICRIIDAE Berlese, 1885 is conserved under Article 80 of the Code (maintenance of existing usage)].

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

EPICRIIDAE Fitzinger, 1843, *Systema Reptilium... fasciculus primus: Amblyglossae (Conspectus geographicus)*, p. 34.

Epicrium Wagler, 1828, *Isis, von Oken*, **21**(7): col. 742.

glutinosa, Caecilia, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 229.

ICHTHYOPHIIDAE Taylor, 1968, *The caecilians of the world: a taxonomic review*, p. 46.

Ichthyophis Fitzinger, 1826, *Neue Classification der Reptilien nach ihren natürlichen verwandtschaften nebst einer Verwandtschaftstafel und einem Verzeichnisse der Reptiliensammlung des KK. zoologischen Museums zu Wien*, p. 36.

OPINION 1605

Thorius pennatulus Cope, 1869 (Amphibia, Caudata): specific name conserved

Ruling

(1) Under the plenary powers the specific name *pennatribus* Cope, 1869 (May), as published in the binomen *Thorius pennatribus*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Thorius* Cope, 1869 (May) (gender: masculine), type species by monotypy *Thorius pennatribus* Cope, 1869 (May) (= *pennatulus* Cope, 1869 (June)), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *pennatulus* Cope, 1869 (June), as published in the binomen *Thorius pennatulus* (specific name of the type species of *Thorius* Cope, 1869 by virtue of the ruling in (1) above), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *pennatribus* Cope, 1869, as published in the binomen *Thorius pennatribus* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2650

An application for the conservation of *Thorius pennatulus* Cope, 1869 was received from Drs H.M. Smith, J. Hanken & D. Chiszar (*University of Colorado at Boulder, Colorado, U.S.A.*) on 14 March 1988. After correspondence the case was published in BZN **45**: 210–211 (September 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 211. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Schuster, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson.

No vote was received from Starobogatov.

Nye would have preferred to treat *pennatribus* as an incorrect original spelling. Thompson considered insufficient evidence had been provided to determine whether use of the plenary powers was justified.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

pennatribus, Thorius, Cope, 1869 (May), *American Naturalist*, **3**(4): 222.
pennatulus, Thorius, Cope, 1869 (June), *Proceedings of the Academy of Natural Sciences of Philadelphia*, **21**: 111.
Thorius Cope, 1869 (May), *American Naturalist*, **3**(4): 222.

OPINION 1606

Semioptera wallacii Gray, 1859 (Aves, PARADISAEIDAE): conserved as the correct spelling of the generic and specific names

Ruling

(1) Under the plenary powers the spelling of both the generic and specific names *Semioptera wallacii* Gray, 1859 are hereby ruled to be correct, despite their publication in the spelling *Semeioptera Wallacei.*

(2) The name *Semioptera* Gray, 1859 (gender: feminine), type species by monotypy *Semioptera wallacii* Gray, 1859, spelling conserved in (1) above, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *wallacii* Gray, 1859, as published in the combination *Paradisaea (Semeioptera) Wallacei* (specific name of the type species of *Semioptera* Gray, 1859, spelling conserved in (1) above), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Semeioptera* Gray, 1859 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology (ruled in (1) above to be an incorrect original spelling of *Semioptera* Gray, 1859).

(5) The name *wallacei* Gray, 1859, as published in the combination *Paradisaea (Semeioptera) Wallacei,* is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology (ruled in (1) above to be an incorrect original spelling of *wallacii* Gray, 1859).

History of Case 2441

An application for the conservation of the spelling of *Semioptera wallacii* Gray, 1859 (Wallace's Standard Wing Bird of Paradise) was received from Ms M. LeCroy (*American Museum of Natural History, New York, U.S.A.*) on 3 May 1983 and published in BZN **45**: 212–213 (September 1988). Notice of the case was sent to appropriate journals. An opposing comment from Jiři Mlíkovský (*Czechoslovak Academy of Sciences, Praha*), together with a reply by the author of the application and Walter J. Bock (*Columbia University, New York, U.S.A.*), was published in BZN **46**: 49–50 (March 1989).

The original report in *The Literary Gazette* (March 1859) has been examined (cf. para. 2 of the application). The spelling *Semeioptera Wallacei* appeared (p. 406) in a Zoological Society meeting report which stated '... Mr G.R. Gray proposed the subgeneric name *Semeioptera*, and he further added the provisional specific name of *Wallacei*, in commemoration of the indefatigable energy [of] Mr Wallace...'. The report included a description of the bird, used by Gray in proposing the names. Authorship of these names is thus to be attributed to Gray.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 212–213. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 25: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski (in part), Nielsen, Nye (in part), Ride, Savage, Schuster (in part), Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Kabata and Lehtinen.

No vote was received from Starobogatov.

Lehtinen, Mroczkowski, Nye and Schuster accepted the spelling *Semioptera*, but considered that *wallacei* should be retained as being correct for reasons of both priority and derivation. Holthuis commented that the names *Semeioptera* and *wallacei* could have been suppressed. Ride said the Commission should have been asked to choose between suppression and the course put forward on the voting papers, namely to rule that the *Literary Gazette* names were incorrect original spellings. Thompson said that the Commission could have ruled that *The Literary Gazette* was not a publication in the sense of the Code.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

Semeioptera Gray, 1859, *Literary Gazette* (new series), **39**: 406 (an incorrect original spelling of *Semioptera*).

Semioptera Gray, 1859, *Literary Gazette* (new series), **39**: 406 (incorrectly spelled as *Semeioptera*).

wallacei, Paradisaea (Semeioptera), Gray, 1859, *Literary Gazette* (new series), **39**: 406 (an incorrect original spelling of *wallacii*).

wallacii, Paradisaea (Semioptera), Gray, 1859, *Literary Gazette* (new series), **39**: 406 (incorrectly spelled as *wallacei*).

OPINION 1607

Mus musculus domesticus Schwarz & Schwarz, 1943 (Mammalia, Rodentia): specific name conserved

Ruling

(1) Under the plenary powers it is hereby ruled that:

(a) all uses of the specific name *domesticus*, published in combination with *Mus* Linnaeus, 1758, prior to its use by Schwarz & Schwarz, 1943, are hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;

(b) the specific name *domesticus* Schwarz & Schwarz, 1943, as published in the trinomen *Mus musculus domesticus*, is to be given precedence over all names, with the exception of *musculus* Linnaeus, 1758, that are considered to be synonyms of it.

(2) The name *domesticus* Schwarz & Schwarz, 1943, as published in the trinomen *Mus musculus domesticus*, is hereby placed on the Official List of Specific Names in Zoology with the endorsement that it is to be given precedence over all names, with the exception of *musculus* Linnaeus, 1758, that are considered to be synonyms of it.

(3) The name *domesticus* Rutty, 1772, as published in the binomen *Mus domesticus*, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology (a nomen nudum).

History of Case 2640

An application for the conservation of *Mus musculus domesticus* Schwarz & Schwarz, 1943 (the western European house mouse) was received from Dr G.B. Corbet (*The Natural History Museum, Cromwell Road, London, U.K.*) on 26 January 1988. After correspondence the case was published in BZN **45**: 214–215 (September 1988). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 December 1989 the members of the Commission were invited to vote on the proposals published in BZN **45**: 215. At the close of the voting period on 1 March 1990 the votes were as follows:

Affirmative votes — 21: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Heppell, Kabata, Kraus, Macpherson, Mahnert, Martins de Souza, Minelli, Nielsen, Ride, Schuster, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 4: Holthuis, Lehtinen, Nye and Savage.

No vote was received from Starobogatov.

Dupuis and Mroczkowski abstained.

Voting against, Holthuis, Lehtinen and Nye considered that the name *domesticus* Rutty, 1772 should have been ruled to be available; voting for, Thompson was of the same view. Heppell said that the Commission could have ruled that *Mus domesticus* Rutty, 1772 was to be interpreted in the sense of Schwarz & Schwarz (1943). Dupuis and Mroczkowski abstained because they considered the case needed more information and discussion. Supporting the application, Ride drew attention to the importance of there being designated a lectotype (or neotype) of the nominal species *Mus* domesticus Schwarz & Schwarz, 1943, preferably a specimen of known karyotype. Savage would have supported the application if such a type had been designated.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

domesticus, Mus, Rutty, 1772, *An essay towards a natural history of the county of Dublin...*, vol. 1, p. 281.

domesticus, Mus musculus, Schwarz & Schwarz, 1943, *Journal of Mammalogy*, **24**: 65.

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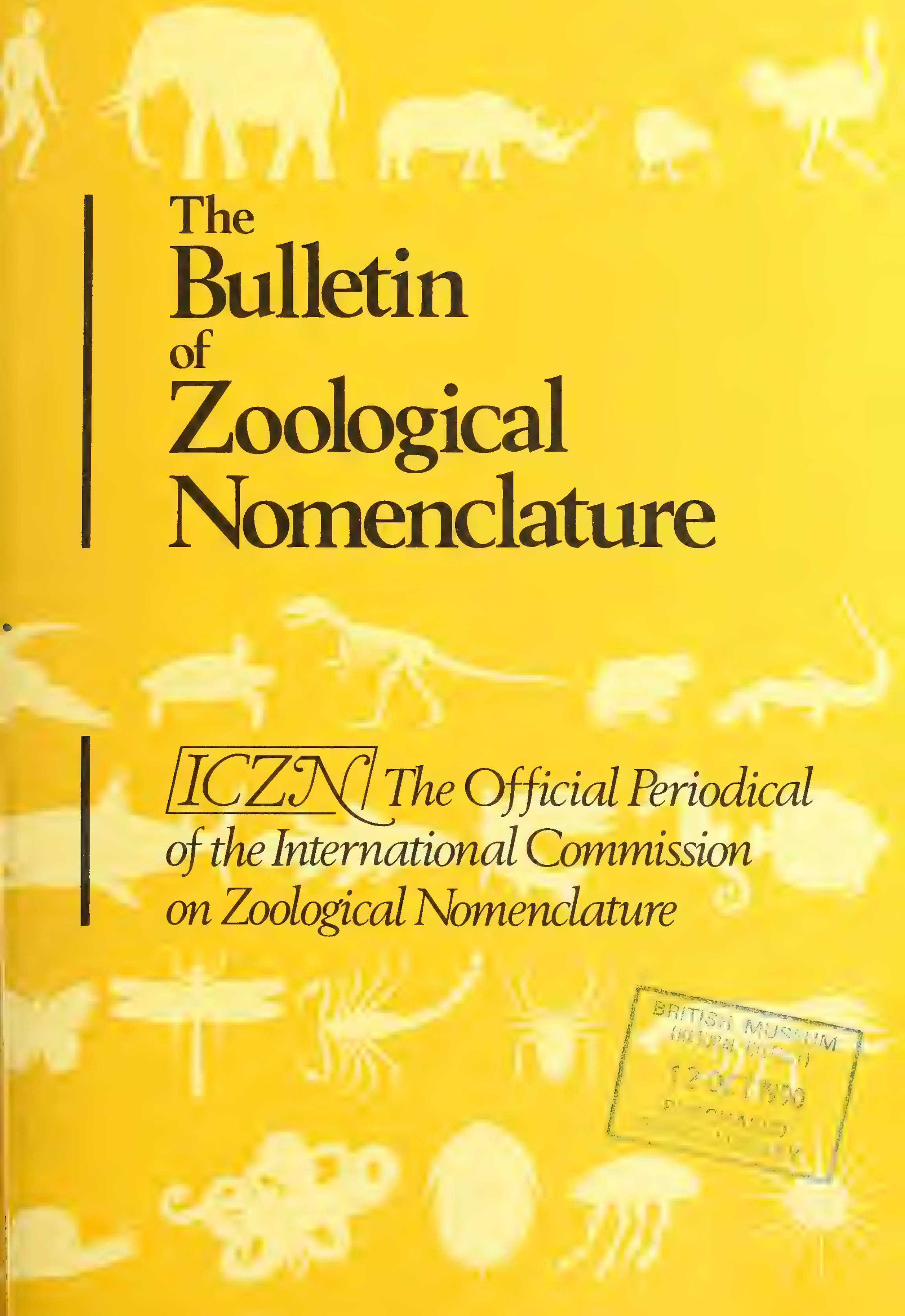

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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Notices

(a) *Invitation to comment.* The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after their publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 47, part 2 (published on 29 June 1990):

(1) *Lepidomenia* Kowalevsky in Brock, 1883 (Mollusca, Solenogastres): proposed confirmation of *L. hystrix* Marion & Kowalevsky in Marion, 1885 as the type species. (Case 2768). D. Heppell.

(2) *Laiocochlis* Dunker & Metzger, 1874 (Mollusca, Gastropoda): proposed conservation as the correct original spelling. (Case 2769). D. Heppell.

(3) *Homo lar* Linnaeus, 1771 (currently *Hylobates lar*; Mammalia, Primates) and *Hylobates entelloides* Geoffroy Saint-Hilaire, 1842: proposed conservation of the specific names. (Case 2770). P.D. Jenkins & C.P. Groves.

(4) *Amphiuma tridactylum* Cuvier, 1827 (Amphibia, Caudata): proposed conservation of the specific name. (Case 2771). H.A. Dundee.

(5) *Dicerca* Eschscholtz, 1829 and *Chrysobothris* Eschscholtz, 1829 (Insecta, Coleoptera): proposed conservation as the correct original spellings. (Case 2772). G.H. Nelson.

(6) *Schizopus* LeConte, 1858 (Insecta, Coleoptera): proposed conservation. (Case 2773). G.H. Nelson.

(7) *Scatophaga* Meigen, 1803 (Insecta, Diptera): proposed conservation as the correct original spelling. (Case 2774). G.A. Parker.

(8) *Meladema* Laporte, 1835 (Insecta, Coleoptera): proposed conservation. (Case 2776). A.N. Nilsson.

(9) *Dytiscus biguttatus* Olivier, 1795 (currently *Agabus biguttatus*; Insecta, Coleoptera): proposed conservation of the specific name. (Case 2777). A.N. Nilsson.

(10) *Asaphus eichwaldi* Fischer de Waldheim in Eichwald, 1825 (currently *Paladin eichwaldi*; Trilobita): proposed conservation of neotype designation. (Case 2778). G. Hahn.

(11) *Carabus mollis* Marsham, 1802 (currently *Calathus mollis*; Insecta, Coleoptera): proposed conservation of the specific name. (Case 2779). B. Aukema & M.L. Luff.

(12) *Ichthyosaurus trigonus* Owen, 1840 (currently *Macropterygius trigonus*; Reptilia, Ichthyopterygia): proposed replacement of neotype by rediscoverd holotype. (Case 2779). E.E. Spamer & H.S. Torrens.

(13) *Platyscelis* Latreille, 1818 (Insecta, Coleoptera): proposed designation of *Tenebrio hypolithus* Pallas, 1781 as the type species. (Case 2780). L.V. Egorov.

Bulletin of Zoological Nomenclature — Crustacea and Mollusca Offprints

As an experiment to assess the demand, the International Trust for Zoological Nomenclature is introducing a subscription for individual zoologists wishing to receive offprints of all cases in particular disciplines. For an annual payment of £15 or $25 subscribers will receive copies of all Applications, Comments and Opinions relating to either the Crustacea or Mollusca as soon as they are published in the *Bulletin of Zoological Nomenclature*. This service will start with the present volume, but offprints are available back to 1980.

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The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

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Official Lists and Indexes of Names and Works in Zoology — Supplement

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895 up to 1985. There are about 9,900 entries.

In the three years 1986–88, 544 names and three works have been added to the Official Lists and Official Indexes. A supplement has been prepared giving these

additional entries, together with some amendments to entries in the 1987 volume. This supplement was circulated with Vol. 46, Part 1 of the *Bulletin of Zoological Nomenclature*. Copies can be obtained without charge from either of the following addresses, from which the *Official Lists and Indexes* can be ordered at the price shown (postage included).
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Case 2734

Thalassochernes Beier, 1940 (Arachnida, Pseudoscorpionida): proposed designation of *Chelifer taierensis* With, 1907 as the type species

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Abstract. The purpose of this application is the designation of the nominal species *Chelifer taierensis* With, 1907 as the type species of the pseudoscorpion genus *Thalassochernes* Beier, 1940. In his definition of *Thalassochernes*, Beier had misidentified the species he was studying as *Chelifer pallipes* White, 1849.

---

1. The first pseudoscorpion to be described from New Zealand, *Chelifer pallipes* White, 1849 (p. 6), was only briefly characterised by White, based upon an unstated number of specimens from an unnamed locality. C.J. With (1905, p. 111) gave an amplified description, along with the first illustrations, of a specimen he regarded as the holotype in the British Museum (Natural History) collections, registration number BM 1845.93.

2. Ellingsen (1910, p. 376) attributed three females from New Zealand (two from Stephen's Island and one without precise locality) to *Chelifer pallipes* White, 1849. Apparently basing his redescription on Ellingsen's material, Beier (1932, p. 111) transferred *C. pallipes* to *Haplochernes* Beier, 1932 (p. 108).

3. Beier (1940, p. 182) designated *Chelifer pallipes* as type species of his new genus *Thalassochernes* (p. 182) and attributed to this nominal species a further New Zealand specimen from Pitt Island. He subsequently identified further specimens from various localities in New Zealand as *Thalassochernes pallipes* (1948, p. 537; 1966, p. 369; 1967, p. 293).

4. In 1931, Chamberlin (p. 291) established the genus *Philomaoria*, with type species *Philomaoria novazealandica* (p. 291), based on a number of specimens from New Brighton, New Zealand.

5. In 1976, Beier (p. 241) transferred *Chelifer pallipes* (sensu With, 1905) to *Philomaoria*, declaring it to be a senior synonym of the type species *Philomaoria novazealandica*.

6. In 1976, Beier (p. 215) attributed the specimens that had been identified as *pallipes* by Ellingsen (1910) and by himself (Beier, 1932, 1940, 1948, 1966, 1967) to *Thalassochernes taierensis*, originally published as *Chelifer taierensis* by With (1907, p. 55). Beier wrote: 'Ellingsen was responsible for the misinterpretation of *Chelifer pallipes* White, 1849, a species now placed in *Philomaoria*. Since 1932 I have consistently used the name *pallipes* for the present species', i.e. *Thalassochernes taierensis* (With).

7. It is clear that *Thalassochernes* Beier, 1940 was based upon a misidentified type species and the case is referred to the Commission under Article 70b to select a type species for *Thalassochernes*. The two options available have different ramifications:

(1) to select the nominal species *Chelifer pallipes*, rendering *Thalassochernes* a junior subjective synonym of *Philomaoria* and leave *Chelifer taierensis* without a valid generic name; and (2) to select the species actually in front of Beier (1940) (i.e. *Chelifer taierensis*), leaving *Thalassochernes* as a valid genus within the CHERNETIDAE. The second option would accord with current usage (e.g. Beier, 1976) and be in the interests of stability.

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to set aside all previous type species designations for the nominal genus *Thalassochernes* Beier, 1940 and to designate *Chelifer taierensis* With, 1907 as type species of the genus;

(2) to place on the Official List of Generic Names in Zoology the name *Thalassochernes* Beier, 1940 (gender: masculine), type species as designated in (1) above *Chelifer taierensis* With, 1907;

(3) to place on the Official List of Specific Names in Zoology the name *taierensis* With, 1907, as published in the binomen *Chelifer taierensis* (specific name of the type species of *Thalassochernes* Beier, 1940).

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Case 2728

Artemia franciscana Kellogg, 1906 (Crustacea, Branchiopoda): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the specific name of a broadly distributed North American species of brine shrimp, *Artemia franciscana* Kellogg, 1906. The name is threatened by four senior subjective synonyms.

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1. Thompson (1834, p. 107) described the new genus and species *Artemis guildingi* on the basis of a single female specimen sent to him by the Reverend L. Guilding. The name *Artemis* is a junior homonym of *Artemis* Kirby & Spence, 1828 (Lepidoptera), and was presumably an unjustified emendation of *Artemia* Leach, 1819, since Thompson refers to '*Artemis salinus* [sic], or Brine Shrimp' (cf. BZN **37**: 224). Thompson's description consists of the comments 'one female probable of this Genus' and 'biarticulate oviferous sac' along with two drawings, and he gave the locality as the West Indies. The current location of this specimen is unknown. Thompson's proposed name is included in published listings of the species of *Artemia* but has not otherwise been used. Daday (1910, p. 117) placed it in the synonymy of *Artemia salina* (Linnaeus, 1758, p. 634, from 'Anglia'). The inadequacy of Thompson's description makes it impossible to identify his specimen even as to genus. This name is clearly a nomen dubium.

2. Verrill (1869a, p. 248) described *Artemia gracilis* on the basis of specimens collected from large wooden tubs on a railroad bridge across an extensive salt marsh near New Haven, Connecticut. The water, which was much concentrated by evaporation, came from pools in the marsh. A search of the pools from which the water had been collected failed to produce any *Artemia* (Verrill, 1869a, p. 234). Verrill's type material is in the Peabody Museum of Natural History, Yale University, Connecticut (YPM No. 396, 397). Packard (1883, p. 330) discussed four nominal species from the United States (*Artemia gracilis* Verrill, 1869a; *A. monica* Verrill, 1869a; *A. fertilis* Verrill, 1869b; and *A. utahensis* Lockington, 1876) and the European *A. salina* (Linnaeus, 1758), and enumerated what he considered species-specific morphological differences between the American species and the European *Artemia salina*. Regarding Verrill's species he stated '... I do not regard the difference he [Verrill] points out as more than individual', and placed Verrill's three species (together with *utahensis* with no explanation — one can only guess that he was influenced by the fact that both *fertilis* and *utahensis* were

names for *Artemia* from the same lake; cf. para. 7) under the first cited available name, *gracilis*. Daday (1910, p. 117), influenced by work demonstrating that the morphology of Eurasian *Artemia* undergoes what at that time were considered taxonomically important changes when cultured at different salinities, synonymized the four nominal species from the United States under *Artemia salina*. Jensen (1918) and Relyea (1937), apparently unaware of Daday's synonymy since they did not cite his work, followed Packard in referring *Artemia* from Great Salt Lake, Utah, to *A. gracilis*. Bond (1933) found no relationship between salinity and morphology for *Artemia* from Monterey Bay, California, and thus chose not to follow Daday's synonymy.

3. Kellogg (1906, p. 596), stating there were three species of *Artemia* recognized in America (*gracilis*, *fertilis* and *monica*), described a new species, *Artemia franciscana*, from a salt works at Redwood City on the west shore of San Francisco Bay, California. Noting the closeness of the habitats, Bond (1933) tentatively referred the Monterey Bay *Artemia* to *A. franciscana* but did not refer to *gracilis* at all. The Monterey Bay population had previously been referred to *A. franciscana* by Martin & Wilber (1921) and to *A. salina* by Heath (1924). Keunen (1939) demonstrated reproductive isolation between *Artemia* from salt works near Cagliari, Sardinia, Italy, and at Monterey Bay. On the basis of these findings and others he reviewed, Keunen concluded that the American *Artemia* was specifically distinct from the European *Artemia*. He reviewed the nomenclatural history of the genus *Artemia* and on the basis of priority used *A. gracilis* Verrill, 1869 for the American species. He considered the clearly separate European species to be *Artemia salina* (Linnaeus, 1758). However, most other authors were unaware of or ignored Keunen's work and in general followed Daday (1910) in using the name *A. salina* for all populations of the genus *Artemia*. Undoubtedly the widely used keys of Pennak (1952, 1978) and Dexter (1959) were largely responsible for the continued use in North America of the binomen *Artemia salina*. Belk (1975), unaware of Keunen's work, followed the pattern set by Pennak and Dexter in publishing a key to the Anostraca of North America.

4. During the 1960's and 70's, *Artemia* came to be recognized as a complex of sibling species. Bowen et al. (1978), in a paper that cites the key works in the development of the concept of *Artemia* as such a complex, classified two identifiable North American sibling species as *A. monica* Verrill, 1869 and *A. franciscana* Kellogg, 1906. The Great Salt Lake population, and also populations in the West Indies (cf. para. 1), were included in *franciscana*. *Artemia monica* is a clearly defined taxon endemic to only one unique salt lake and represents no nomenclatural problem. Since the publication of Bowen et al. (1978), *A. franciscana* has been generally and widely accepted as the name of the broadly distributed North American species of *Artemia* as illustrated in these ten papers, many of which are major reviews: Abreu-Grobois (1987), Bowen & Sterling (1978), Bowen et al. (1980), Browne & Bowen (in press), Eng et al. (1990), Hedgecock et al. (1982), Lenz (1987), Mura et al. (1989), Spotte & Anderson (1988) and Vanhaecke et al. (1987). A list of 17 other references demonstrating this general acceptance of *franciscana* is held in the office of the Secretariat. Correspondence in the *Artemia Newsletter* also evidences acceptance (Abreu-Grobois, 1989; Yaneng, 1989). *Artemia* workers find, as did Packard (1883, p. 330), that there are no morphological characters useful in separating Verrill's eastern United States *gracilis* from the western sibling species. The only examples of *gracilis* available for study are museum specimens. Natural habitats of *gracilis* are unknown. The Connecticut wooden tub type locality

ceased to exist long ago, and there are no reports during this century of *Artemia* from states east of the Mississippi River. In the only early records, Verrill (1869b, p. 430) notes an observation of *Artemia* by Agassiz in salines on Cape Cod and another by G.H. Perkins in tubs on a railroad bridge near Boston, Massachusetts. Without live material, *gracilis* cannot be studied using the methods that lead to recognition of *franciscana* and *monica*, nor can it be compared with them. Thus the relationship of *gracilis* to the other sibling species remains unknown, and is at this time unresolvable. This lack of access to living *gracilis* left Bowen et al. (1978) with only one name that could be clearly and unequivocally assigned to the populations they studied — *Artemia franciscana* Kellogg, 1906.

5. When Bowen et al. (1978) chose to apply the binomen *A. franciscana* Kellogg, 1906 not only to Californian material but also to the Great Salt Lake population of *Artemia*, the then current 1964 edition of the Code indicated in Article 23b that the name *fertilis* Verrill, 1869, unused since 1883, could be rejected as a nomen oblitum; the authors were unaware that this Article had been revoked from January 1973.

6. Amat Domenech (1980) demonstrated morphological differences between *Artemia* from Europe and California. He identified the European species as *Artemia salina* (Linnaeus, 1758). He referred the American species to *A. gracilis* Verrill, 1869. However, his use of *gracilis* has not been followed by subsequent authors for reasons discussed in para. 4.

7. Packard (1883, p. 330) included in his synonymy under *A. gracilis* the name *A. utahensis* Lockington, 1876. The Lockington reference Packard cites is a report of a paper that Lockington read before the San Francisco Microscopical Society. The report (p. 137) was most likely written by Henry Lawson, editor of the journal the report appears in. It is probable that Lockington, after giving his paper, learned that Verrill (1869b) had already named the Great Salt Lake *Artemia* as *fertilis*, and so never published in full the description discussed at the San Francisco meeting.

8. Although we are advocates of the Principle of Priority, it is our opinion that stability will best be served in this instance by suppression of the names *guildingi*, *fertilis* and *utahensis* which have not been used as senior synonyms since their original publication. The first of these, *guildingi*, is based on an inadequate description of a single female, now lost. The other two, *fertilis* and *utahensis*, were both described from the Great Salt Lake population which has been extensively studied and shown to be conspecific with *A. franciscana* on the basis of cross-fertility and similarity of isozyme patterns (Bowen, 1964; Clark & Bowen, 1967; Bowen & Sterling, 1978). Both names have remained unused since Packard (1883, p. 330) listed them as junior synonyms of *A. gracilis*. No author has even considered them enough to list them formally as synonyms of *franciscana*. There is currently a rapidly growing literature dealing with *A. franciscana* (cf. para. 4). The relationship of *gracilis* to *franciscana* is doubtful, as explained in para. 4. If at some future time this situation should change and the two names should be considered synonyms, assigning priority to *gracilis* would cause serious confusion because of the very extensive use of *A. franciscana* in a wide range of studies (see para. 4).

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:

  (a) to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

    - (i) *guildingi* Thompson, 1834, as published in the binomen *Artemis guildingi*;
    - (ii) *fertilis* Verrill, 1869, as published in the binomen *Artemia fertilis*;
    - (iii) *utahensis* Lockington, 1876, as published in the binomen *Artemia utahensis*;
  - (b) to give precedence to the specific name *franciscana* Kellogg, 1906, as published in the binomen *Artemia franciscana*, over *gracilis* Verrill, 1869, as published in the binomen *Artemia gracilis*, whenever the two names are considered to be synonyms;
- (2) to place the following names on the Official List of Specific Names in Zoology:
  - (a) *franciscana* Kellogg, 1906, as published in the binomen *Artemia franciscana*, with the endorsement that it is to be given precedence over *gracilis* Verrill, 1869, as published in the binomen *Artemia gracilis*, whenever the two names are considered to be synonyms;
  - (b) *gracilis* Verrill, 1869, as published in the binomen *Artemia gracilis*, with the endorsement that it is not to be given priority over *franciscana* Kellogg, 1906 as published in the binomen *Artemia franciscana*, whenever the two names are considered to be synonyms;
- (3) to place the following names on the Official Index of Rejected and Invalid Specific Names in Zoology:
  - (a) *guildingi* Thompson, 1834, as published in the binomen *Artemis guildingi* and as suppressed in (1)(a)(i) above;
  - (b) *fertilis* Verrill, 1869, as published in the binomen *Artemia fertilis* and as suppressed in (1)(a)(ii) above;
  - (c) *utahensis* Lockington, 1876, as published in the binomen *Artemia utahensis* and as suppressed in (1)(a)(iii) above;

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Case 2720

Dalla Mabille, 1904 (Insecta, Lepidoptera): proposed conservation

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Abstract. The purpose of this application is to conserve the name *Dalla* Mabille, 1904 for a hesperiid (skipper) butterfly genus by suppression of the seldom used senior subjective synonym *Eumesia* Felder & Felder, [1867].

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1. In 1867, Felder & Felder established a new genus *Eumesia* (p. 504) with a single nominal species *semiargentea* (p. 505) which is, therefore, the type species by monotypy. The species was based on a hesperiid specimen from Colombia with the attached head of a satyrid butterfly. The specimen, which they failed to recognize as an artefact, is now in the British Museum (Natural History) collections, registered as Rothschild Bequest, BM 1939–1, type no. H–1098. Felder & Felder ([1867], p. 504) also proposed a new family EUMESIIDAE as an intermediate familial group between HESPERIIDAE and SATYRIDAE, an action resulting only from their failure to recognize the composite nature of the holotype.

2. In 1904, Mabille (p. 107) established a new genus *Dalla* in which he placed 47 species (eight of which he had not seen and two of which he listed as of uncertain status) plus five additional names as synonyms. He (p. 108) recognized *Eumesia* as a valid genus with *semiargentea* as the sole species, but did not make clear what he considered to be the significant difference between *Eumesia* and *Dalla*. Mabille & Boullet (1908, 1912, 1919) never finished their revision of the HESPERIIDAE, and their treatment of *Eumesia* and *Dalla* was not stated. Lindsey (1921, p. 58) designated *Cyclopides eryonas* Hewitson, 1877 (p. 325) as the type species of *Dalla*.

3. Evans (1955, p. 19) was the first worker to recognize the synonymy of *Eumesia* and *Dalla*. His action is described by Hemming (1967, p. 177) in the following terms:

> 'Evans treated this generic name [*Eumesia*] in a strange and entirely incorrect manner. He accepted the nominal species *Eumesia semiargentea* as representing a taxonomically distinct species. In spite of this he rejected the generic name *Eumesia* on the ground that the holotype of its type species (*Eumesia semiargentea*) now in the British Museum was a specimen which had lost its head and on which in place of the missing head the head of some Satyrid species had been gummed. Evans's ground for rejecting this generic name was that the substitution of this false head on the holotype vitiated the generic diagnosis given by the authors of this name. This action was misconceived, there being nothing in the Code to authorize the

> rejection of a generic name on such grounds. Moreover, Evans's contention was incorrect in fact, for only part of the original diagnosis was concerned with the characters of the head. Quite apart from this consideration, Evans forgot that prior to 1931 it was not necessary for an author to provide any diagnosis for a new genus, provided that he included in the genus one or more duly established nominal species. This condition was duly complied with by the authors of this generic name. The name *Eumesia* is therefore an available name, and accordingly Evans's action in rejecting it was invalid'.

Hemming (1967) did not himself comment on the possible subjective synonymy of *Eumesia* and *Dalla*. He treated both *Eumesia* (p. 177) and *Dalla* (p. 138) as valid generic names, although he did not consider the taxonomy.

4. Bridges (1983 (II), pp. 13, 14; 1988b (II), p. 22) accepted Hemming's treatment of *Eumesia* as an available name. He recognized *Eumesia* as a senior synonym of *Dalla* and placed in *Eumesia* all the species that Evans (1955, pp. 18–44) had included in *Dalla*, including its type species *eryonas*. However, he did list under *Dalla* (1983 (II), p. 11; 1988b (II), p. 18) four names published since Evans' work, but this inconsistent action was a simple 'lapsus', understandable in such a massive undertaking. Bridges (1988c (5), pp. 1–6), having seen the proposals to the Commission in a draft of this application, has emended his earlier treatment and placed all relevant taxa (including *semiargentea*) in *Dalla*, eliminating *Eumesia* completely. He has asked to be included as a co-author of this application.

5. Since its publication in 1867, the name *Eumesia* has been used exclusively in conjunction with its type species *semiargentea* with two exceptions: Erschoff (1876, pp. 140–149, pl. 3, fig. 6) who described *Eumesia jelskyi*, and Bridges (1983, 1988b) as set out in para. 4 above. *Dalla*, on the other hand, has been used since 1904 in the description of new species by at least eight authors in ten separate publications (e.g. *Dalla seirocastnia* Draudt, [1923], p. 923; *Dalla frontinia* Evans, 1955, pp. 25–26; *Dalla pota* Bell, 1959, p. 1) as well as in a number of catalogue-type compilations.

6. The family-group name EUMESIIDAE Felder & Felder, [1867] has not been used since its description in any of the relevant taxonomic literature or in any catalogue-type compilations. It is a senior subjective synonym of HETEROPTERINAE Aurivillius, 1925 (pp. 506, 546) which is based on the well known Palearctic genus *Heteropterus* Duméril, 1806 (p. 271). HETEROPTERINAE has been used by a number of authors including Aurivillius (see above); Higgins, 1975, p. 51; Miller & Brown, 1981, p. 26; Bridges, 1988a (II), p. 1.

7. To reintroduce usage of the generic name *Eumesia* and the family-group name EUMESIIDAE would not be in the interests of nomenclatural stability. This family-group name would cease to be available on suppression of the name of the type genus, *Eumesia*.

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Eumesia* Felder & Felder, [1867] for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Dalla* Mabille, 1904 (gender: feminine), type species by subsequent designation by Lindsey (1921) *Cyclopides eryonas* Hewitson, 1877;

(3) to place on the Official List of Specific Names in Zoology the name *eryonas* Hewitson, 1877, as published in the binomen *Cyclopides eryonas* (specific name of the type species of *Dalla* Mabille, 1904);
(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Eumesia* Felder & Felder, [1867], as suppressed in (1) above;
(5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name EUMESIIDAE Felder & Felder, [1867] (type genus *Eumesia* Felder & Felder, [1867]) (name of the type genus suppressed in (1) above).

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Case 2712

Calliphora vicina Robineau-Desvoidy, 1830 (Insecta, Diptera): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the specific name of *Calliphora vicina* Robineau-Desvoidy, 1830, a cosmopolitan bluebottle fly now widely known under this name. The name is threatened by *Musca carnivora* Fabricius, 1794, a senior synonym, but unused since its proposal. The fly is often referred to as *Calliphora erythrocephala* (Meigen, 1826), but this specific name is a junior primary homonym.

1. The blowfly *Calliphora vicina* Robineau-Desvoidy, 1830 (p. 435) is very common and widely distributed throughout the Holarctic Region, and has followed man into South America, the Afrotropical region (Mauritius and South Africa), northern India, Australia and New Zealand. It is a widely known and easily bred laboratory insect of great medical, veterinary and forensic importance (Zumpt, 1965; Greenberg, 1971, 1973, 1985; Smith, 1986). It is one of the few insects to have whole monographs devoted to it (references in Smith, 1986, p. 105) and some 900 scientific publications have been based on this species, mostly in the field of insect physiology and genetics.

2. Until 1948 the fly was known under the specific name *erythrocephala* Meigen, 1826 (p. 62). However, Hall (1948, pp. 307–308) pointed out that *Musca erythrocephala* Meigen was a junior primary homonym of *M. erythrocephala* De Geer, 1776 (p. 146) and *M. erythrocephala* Fabricius, 1787 (p. 351) and therefore an invalid name. There is also a species given the replacement name *Musca erythrocephala* by Villers (1789, p. 137). Meigen's name is therefore preoccupied several times over. The identity of De Geer's, Fabricius's and Villers's species is not known with certainty, but they are definitely species other than *Calliphora vicina*. Hall (1948), acting as first reviser, selected the name *vicina* Robineau-Desvoidy, 1830, one of several next oldest available synonyms by Robineau-Desvoidy that were listed by Bezzi & Stein (1907). At present the species is universally known in the taxonomic literature (as opposed to the applied literature, see para. 3) under the name *vicina* (Hall, 1965; James, 1970, 1977; Pont, 1980; Hardy, 1981; Schumann, 1986; Rognes, 1990). Dear (1986, p. 26) recovered and labelled the holotype of *Calliphora vicina* Robineau-Desvoidy in Bigot's Diptera Exotica collection in Oxford.

3. Since 1940 some 680 publications based on this insect and listed by *Biological Abstracts* have used the specific name *erythrocephala*. The name *vicina* first appeared in

the *Zoological Record* in 1948 and in *Biological Abstracts* in 1956. In the first decade after 1956 three publications used *vicina* whereas 79 used *erythrocephala*, and since then 78 have used *vicina* whereas 586 used *erythrocephala*. In very recent years the two names have been used about equally. For four decades this insect has therefore been known, de facto, by two specific names. Research papers using one name have appeared with those using the other in the same journals, often in the same volume of a journal, suggesting that some people (including editors) believe that two species are involved. Patently, the editors of non-taxonomic journals have been unable to give appropriate guidance (a fact thrown into relief by the use of garbled versions of these names such as '*erythroencephala*', '*vincina*' and '*vicinia*' reported as such in *Biological Abstracts* for 1979 and 1987).

4. *Musca carnivora* Fabricius, 1794 (p. 313) was listed by Bezzi & Stein (1907, p. 546) and Schumann (1986, p. 18) as a synonym of *Calliphora vomitoria* (Linnaeus, 1758). The holotype of *carnivora* is present in the Fabrician collection (Kiel collection) in the Universitetets Zoologiske Museum in Copenhagen. It has recently been examined (Rognes, 1990) and found to be a specimen of *Calliphora vicina*. The name *carnivora* has never been used since its proposal.

5. According to the Principle of Priority the specific name *carnivora* Fabricius should replace *vicina* Robineau-Desvoidy. However, this replacement is likely to produce even further confusion and instability as regards the nomenclature of this fly species than did the replacement of *erythrocephala*. Considering the very slow acceptance of the name *vicina* since 1948 (see para. 3), the introduction of a third name for this species is likely to be even less successful. The chances are microscopic or nil that *carnivora* would be universally adopted in the foreseeable future. There are even ample reasons to believe that, outside the field of taxonomy, a third name may lead to a mistaken belief in the existence of yet another species, in the same manner as some editors today apparently believe that *erythrocephala* and *vicina* are two different species. Utter chaos and confusion would almost certainly be the outcome of the introduction of *carnivora*.

6. There also seems to be no good reason today to reinstate the name *erythrocephala* for this species by suppressing its senior homonyms, in view of the universal acceptance of *vicina* in the taxonomic literature and the growing adherence to the name *vicina* in the applied literature.

7. The name *vicina* will possibly be threatened also in the future by other older (pre-1830) names. However, we are convinced that the best course to follow to remedy the confused present state of affairs in the applied literature and to lay the foundations for a stable nomenclature in the future is to conserve the name *vicina*.

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *carnivora* Fabricius, 1794, as published in the binomen *Musca carnivora*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *vicina* Robineau-Desvoidy, 1830, as published in the binomen *Calliphora vicina*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:

   (a) *carnivora* Fabricius, 1794, as published in the binomen *Musca carnivora* and as suppressed in (1) above;

(b) *erythrocephala* Meigen, 1826, as published in the binomen *Musca erythrocephala* (a junior primary homonym of *Musca erythrocephala* De Geer, 1776).

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Case 2722

Rivulus marmoratus Poey, 1880 (Osteichthyes, Cyprinodontiformes): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the specific name of *Rivulus marmoratus* Poey, 1880 for a self-fertilising hermaphroditic killifish. The name is threatened by the senior subjective synonym *ocellatus* Hensel, 1868. Through misidentification the latter name has been used for a second species, which is correctly named *caudomarginatus* Seegers, 1984.

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1. In 1880 Poey (p. 248) described *Rivulus marmoratus* on the basis of specimens from Cuba or the U.S.A. (he was uncertain of their origin). Rivas (1945) identified two specimens labeled *Rivulus cylindraceus* in the collection of the United States National Museum as *R. marmoratus*; using circumstantial evidence he stated that these specimens were Poey's original type specimens, and of these specimens designated as lectotype specimen USNM 37429. We do not accept Rivas's assertion that this specimen is a syntype and believe the types have been lost. This does not affect the case.

2. The species is distributed in marginal marine and semi-terrestrial habitats from southern Florida, U.S.A., through the Caribbean basin to the southern coast of Brazil. It is widely used in experimental studies because it is easily manipulated in the laboratory and because it is the only fish that is a self-fertilising hermaphrodite. This has led to the development of clones which, being genetically uniform, provide a control for genetic variation in numerous studies involving carcinogenicity, mutagenesis, teratogenesis and other areas of environmental research.

3. The species has been listed consistently as *R. marmoratus* in the American Fisheries Society's list of names (Robins et al., 1980, p. 33, and the earlier editions of 1960 and 1970) and *marmoratus* is the only name applied to the species in the experimental and genetic literature prior to Seegers, 1984 (see para. 4 below). Reports which have used the name, in a variety of disciplines, include Rivas, 1945 (species characteristics); Parenti, 1981, pp. 482–483 (systematics); Harrington & Rivas, 1958 (distribution and ecology); Koenig et al., 1982 (value as an experimental subject); Mittwoch, 1973 (genetics); Harrington, 1975 (sex determination); Massaro et al., 1975 (isozymes); Snelson, 1978 (conservation status); Davis, 1986 (use as a pollution indicator); Park & Kim, 1984 (response to diethylnitrosamine), Abel et al., 1988 (response to hydrogen sulfide); Park & Lee, 1988 (scale growth); Lindsey, 1988

(meristic variation); Ali et al., 1988 (microanatomy of photoreceptors). The name is used by conservationists monitoring endangered populations and the general public interested in the species' unique life history. It is therefore familiar to many non-systematists working with Recent fishes. A list of a further 100 references is held by the Commission Secretariat.

4. The name *Rivulus ocellatus* was proposed by Hensel in 1868 (p. 365) for a fish from Rio de Janeiro, Brazil. The holotype, cat. no. ZMB 7448, is in the Zoologisches Museum der Humboldt-Universität, Berlin (Seegers, 1984, p. 302). The species was known only from the single specimen for 116 years and has rarely been mentioned other than by misidentification (see para. 6 below), although it occurs in the following few faunal lists and lists of synonymies: Eigenmann & Eigenmann (1891, p. 64), Garman (1895, p. 137), Eigenmann (1910, p. 454), Regan (1912, p. 497), Myers (1927, p. 125), von Ihering (1931, p. 261), Fowler (1954, p. 222), and Hoedeman (1956, p. 199; 1959, pp. 49, 52; 1961, p. 65). In 1984 Seegers identified and studied an aquarium stock from Rio de Janeiro and concluded that *ocellatus* and *marmoratus* are conspecific. He adopted the prior name *ocellatus* in accord with the Principle of Priority but contrary to the general acceptance of *marmoratus* as the long-established name for the taxon.

5. A few authors (Thyagarajah & Grizzle, 1986; Grizzle & Thyagarajah, 1987; Park & Yi, 1989) have used the trinomen *R. ocellatus marmoratus*, citing Seegers (1984) as the source. Seegers (p. 304) actually stated that the trinomen could be used only if subspecies were found in the future. No one has suggested that differences exist to justify use of subspecific names.

6. In 1906 Köhler (p. 407, fig. on p. 406) reported the import of a fish that he identified as *R. ocellatus* Hensel, 1868 and which has since become known under that name. Seegers (1984, p. 302) found that this fish did not agree with the description of *ocellatus* and proposed a new specific name, *caudomarginatus*. Of the few known papers that use the name *ocellatus*, most use it as a misidentification sensu Köhler; these are Bögershausen (1910, p. 317), Regan (1912, p. 497, in part), Dreiser (1922, p. 222), von Ihering (1931, p. 261, in part), Innes (1932, p. 247), Stoye (1935, p. 107 and pl. 47), Arnold & Ahl (1936, p. 342), Rachow (undated, no. 641), Fowler (1954, p. 222, in part), Hoedeman (1956, p. 119; 1959, p. 44; 1961, p. 70), Terceira (1974, p. 115), Seegers (1980, p. 141) and Sterba (1983, p. 500). Thus, through the misidentifications cited above, the name *ocellatus* is associated with a fish other than *marmoratus*.

7. We believe that to upset 109 years of extensive usage of the name *Rivulus marmoratus* would be a disservice to users of the biological literature. Article 23(b) of the Code states that the Principle of Priority is to be used to promote stability and should not be used to overturn a long accepted name in its accustomed meaning.

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *ocellatus* Hensel, 1868, as published in the binomen *Rivulus ocellatus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the specific name *marmoratus* Poey, 1880, as published in the binomen *Rivulus marmoratus*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the specific name *ocellatus* Hensel, 1868, as published in the binomen *Rivulus ocellatus* and as suppressed in (1) above.

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Case 2727

Coccyzus euleri Cabanis, 1873 (Aves, Cuculiformes): proposed conservation of the specific name

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Abstract. The purpose of this application is to conserve the specific name of *Coccyzus euleri* Cabanis, 1873, long established in general use for the South American pearly-breasted cuckoo. The name is made invalid by the senior subjective synonym *C. julieni* Lawrence, [1864].

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1. The name *Coccyzus julieni* was established by Lawrence, probably in 1864, for a single specimen of a cuckoo found on Sombrero Island, in the north Leeward Islands of the West Indies. In a full description the bird was characterised by small size, white under the wings and absence of rufous colour in the primary wing feathers. The specimen is now in the American Museum of Natural History (cat. no. AMNH 44495); it is a young bird of unknown sex and lacks its original label.

2. The serial volume in which Lawrence's paper (which included the new specific name *julieni*) was published is dated 1867. However, the foot of the first page (p. 42, ref. a) of the paper bears the date 1864 in small type and the paper is listed in *The Royal Society Catalogue of Scientific Papers* (1879, p. 176) with two dates: '[1864]' for the paper itself and '1867' when citing the serial volume. Lawrence's paper is listed (p. 56) in the first volume (for 1864) of *The Record of Zoological Literature*, published in 1865. Peters (1940, p. 42) adopted the date 1864, as have other authors.

3. *Coccyzus julieni* was considered by Hellmayr (1929, p. 432) as a possible junior synonym of *C. americanus* (Linnaeus, 1758, p. 111), the yellow-billed cuckoo, which has the type locality of South Carolina, U.S.A. *C. julieni* was also listed as a synonym of *americanus* by Laubmann (1939, p. 189), Peters (1940, p. 42), Griscom & Greenway (1941, p. 150), and Steinbacher (1962, p. 55). It was thought to be a subspecies of *americanus* by Cory (1919, p. 335), Gyldenstolpe (1945, p. 90) and Steullet & Deautier (1945, p. 779).

4. Banks (1988, p. 87), however, thought that the identification of *julieni* as *americanus* was incorrect and that, following a direct comparison with a series of specimens of the North American *C. americanus* and the South American species *C. euleri* Cabanis, 1873, the single specimen of *julieni* was unquestionably to be identified as the South American species. *C. euleri* (originally published with the spelling error *Coccygus*) is the pearly-breasted, or southern yellow-billed, cuckoo, a bird described (p. 72) from Cantagalo, Rio de Janeiro State, southeastern Brazil. Type material is in the collections of the zoological museum in Berlin. Ridgway (1916, p. 20), Pinto (1964, p. 169) and Greenway (1978, p. 112) had previously indicated that *julieni* was to be identified with the species *euleri*. Banks (1988) suggested that the type

specimen of *julieni* was almost certainly a vagrant individual of *euleri*. This species migrates north to Surinam (Haverschmidt, 1968, p. 150), Guyana (Chubb, 1916, p. 438), Venezuela (Cherrie, 1916, p. 311) and Colombia (Hilty & Brown, 1986, p. 217). The bird collected was found hiding in a crevice on a rocky islet (Lawrence, p. 98, ref. b), an inappropriate situation for a species that normally inhabits forest or scrub canopy and edge.

5. The specific name *julieni* Lawrence, [1864] is a senior subjective synonym of *euleri* Cabanis, 1873. Ridgway (1916, p. 20), Pinto (1964, p. 169) and Banks (1988, p. 90) adopted *julieni* on the grounds of priority, although Greenway (1978, p. 112) wrote '*julieni*, now *euleri*'. Pinto later (1978, p. 155) used only the name *euleri* without comment, even though including the type locality of *julieni*. The name *Coccyzus euleri* Cabanis, 1873 has been used consistently for the South American pearly-breasted cuckoo. Authors of major check-lists who have used the name include Peters (1940, p. 42), Meyer de Schauensee (1970, p. 112, pl. 24, and the later edition of 1982) and Walters (1980, p. 83). A representative list of more than 30 references, principally covering the last 50 years, is held by the Commission Secretariat. This includes a number of guides and catalogues to the birds of South American countries. Acceptance of the name *julieni* Lawrence, [1864] in place of *euleri* Cabanis, 1873 would upset stability of usage in the extensive literature, especially in South America.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the specific name *julieni* Lawrence, [1864], as published in the binomen *Coccyzus julieni*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Specific Names in Zoology the name *euleri* Cabanis, 1873, as published in the binomen *Coccygus* (= *Coccyzus*) *euleri*;

(3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *julieni* Lawrence, [1864], as published in the binomen *Coccyzus julieni*, and as suppressed in (1) above.

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Case 2723

Phororhacos Ameghino, 1889 (Aves, Gruiformes): proposed conservation

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Abstract. The purpose of this application is to conserve the name *Phororhacos* Ameghino, 1889, which has been widely used for a genus of fossil giant flightless birds from South America. The name was first published as *Phorusrhacos* Ameghino, 1887, based on a single bone then thought to be mammalian, but although this spelling did not appear again for 75 years and was rejected in 1968 as a nomen oblitum it has had extensive recent usage.

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1. In 1887 Ameghino (p. 24) proposed a new genus and species, *Phorusrhacos longissimus*, based on a fragmentary mandible found in Miocene deposits in southern Patagonia, Argentina (although Ameghino interpreted them as Eocene). He assumed the bone to be mammalian (Edentata, or anteaters, armadillos and sloths).

2. In 1889 Ameghino (p. 659) emended the generic name to *Phororhacos*, and proposed a family PHORORHACOSIDAE. The family name was corrected to PHORORHACIDAE by Lydekker (1893, p. 43) and this spelling was accepted by Ameghino and all subsequent workers.

3. Ameghino (1891a, p. 255) realized that *P. longissimus* was a giant flightless bird. Based on a series of finds he described further species of *Phororhacos* (1891a, 1891b, 1895, 1897, 1898, 1900–1903, 1904, 1910). On a single occasion (1898, p. 235) the genus appeared as *Phororhacus*, but elsewhere in that paper it was spelled *Phororhacos* and we assume that *Phororhacus* was simply a misprint.

4. *Phororhacos* has been used as a valid fossil bird genus by numerous workers (e.g. Lydekker, 1893; Mercerat, 1897; Andrews, 1896, 1899; Glangeaud, 1898; Rovereto, 1914; L. Kraglievich, 1920, 1929–32, 1931a, 1931b, 1932, 1940; Sáez, 1927a, 1927b, 1936; Sinclair & Farr, 1932; Cabrera, 1939; Patterson, 1941; J.L. Kraglievich, 1946; Piveteau, 1950, 1955; Patterson & J.L. Kraglievich, 1960; Romer, 1966; Rusconi, 1967; Cracraft, 1968, 1969; Marshall, 1978).

5. Sclater (in a footnote (p.41) in Lydekker's 1893 paper), Loomis (1914) and Mathew & Granger (1917) used the incorrect spellings *Phororhacis*, *Phororhacus* and *Phororhachos* respectively.

6. Except for Brodkorb (1963, 1967; see para. 7 below) no workers had used the name *Phorusrhacos* since Ameghino's first paper of 1887 when Cracraft (1968, p.33, footnote), citing Article 23b of the Code then in force, formally rejected it as a nomen oblitum (i.e. a name not used as valid for more than 50 years and with a junior synonyn in general use). That Article said that 'a nomen oblitum is not to be used unless the Commission so directs', and added '...a zoologist who discovers such a name is to refer it to the Commission...'. Cracraft was correct in his rejection, although he did not refer

the case to the Commission. Article 79c(iii) of the present Code says 'A name *must not be used without the approval of the Commission* [our italics] if it was rejected... [as a nomen oblitum in 1968]...To remove uncertainty, the case should be referred to the Commission asking for the suppression of the rejected name'. This shows that Cracraft's omission to refer the case in 1968 did not invalidate his rejection of *Phorusrhacos* Ameghino, 1887, and we are applying for its suppression.

7. Brodkorb (1963, p. 111, footnote) considered *Phorusrhacos* valid, and he also proposed the replacement family name PHORUSRHACIDAE. He repeated this point of view in his 1967 *Catalogue of fossil birds* (pp. 157, 162–165). Brodkorb's resurrection of a name which had been used only once (75 years earlier and based on a single fragmentary bone not then recognized as avian) was completely unjustified.

8. Despite this, most recent authors have followed Brodkorb and used *Phorusrhacos* (Feduccia, 1980; Tonni, 1980; Mourer-Chauviré, 1981, 1983; Alvarenga, 1982; Cracraft, 1982; Olson, 1985a, 1985b; Tonni & Tambussi, 1986, 1988; Vuilleumier, 1987; Caroll, 1988; Peters, 1989). In total, however, far more workers (see para. 4, and also others) have used *Phororhacos*.

9. Under Article 40a of the Code the family name PHORORHACIDAE Ameghino, 1889 (the correct spelling of PHORORHACOSIDAE: see para. 2) which has been widely used (e.g. by authors listed in para. 4), is valid and is not to be replaced by PHORUSRHACIDAE Brodkorb, 1963. It would be highly confusing to have different valid spellings (*Phorusrhacos*, PHORORHACIDAE) for the genus and the family. Since two spellings of both names have been used we request a definitive resolution from the Commission.

10. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to suppress the generic name *Phorusrhacos* Ameghino, 1887 (rejected as a nomen oblitum by Cracraft, 1968) for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place on the Official List of Generic Names in Zoology the name *Phororhacos* Ameghino, 1889 (gender: masculine), type species by indication under Article 67h of the Code *Phorusrhacos longissimus* Ameghino, 1887;

(3) to place on the Official List of Specific Names in Zoology the name *longissimus* Ameghino, 1887, as published in the binomen *Phorusrhacos longissimus* (specific name of the type species of *Phororhacos* Ameghino, 1889);

(4) to place on the Official List of Family-Group Names in Zoology the name PHORORHACIDAE Ameghino, 1889 (type genus *Phororhacos* Ameghino, 1889);

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Phorusrhacos* Ameghino, 1887, as suppressed in (l) above;

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following names;
    (a) PHORORHACOSIDAE Ameghino, 1889 (an incorrect original spelling of PHORORHACIDAE);
    (b) PHORUSRHACIDAE Brodkorb, 1963 (name of the type genus suppressed in (l) above).

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Comments on the proposed conservation of *Limax fibratus* Martyn, 1784 and *Nerita hebraea* Martyn, 1786 (currently *Placostylus fibratus* and *Natica hebraea*; Mollusca, Gastropoda)

(Case 2641; see BZN **47**: 12–18)

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I object to the conservation of *Limax fibratus* Martyn, 1784. Martyn's names were ruled to be unavailable in Opinion 456 (March 1957), and the next available name is *Bulimus bovinus* Bruguière, 1792. This has been used as *B. bovinus* by Bosc (1802, p. 111), as *Auricula bovina* by Lamarck (1822, p. 134) and Deshayes (1838, p. 328), as *Placostylus fibratus* var. *bovinus* by Pilsbry (1904), and as *P. bovinus* by Zilch (1960, p. 497, where it is cited as the type species of the genus *Placostylus* Beck, 1837) and Abbott (1989, p. 102).

I object to the Commission gradually chiseling away at valid names by the piecemeal conservation of unavailable Martyn and Chemnitz names. Martyn's work was entirely hand-painted and was not published until Chenu's 1845 reprint.

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Dr Abbott's objection (above) to the use of the name *Limax fibratus* Martyn, 1784 does not introduce facts that I have not already stated in my application.

I have given the reasons why I do not consider the name *Bulimus bovinus* Bruguière, 1792 to be applicable to a New Caledonian species of *Placostylus* Beck, 1837 (see BZN **47**: 13, paras. 5, 6). These are that Bruguière gives New Holland (= Australia) for the origin of his species, and that he refers to a figure published by Lister in 1770 (and copied by Favanne in 1780), which was four years before the discovery of New Caledonia by Cook.

Dr Abbott states that the name *bovinus* has been used and lists six references. I did not say that the name had not been used and my application refers to 13 uses of *bovinus*. I did not cite Abbott (1989) simply because Dr Abbott's book was still in press when I submitted my application. Dr Abbott's list does not add anything to the facts as I have already explained them (para. 5 of my application).

Dr Abbott does not address the continuous confusion that has surrounded the name *bovinus*, used at times during the 19th century for a New Zealand species of *Placostylus* but never, except once by Abbott himself, as the name for a New Caledonian species.

If *Limax fibratus* Martyn, 1784 is rejected the next available name is *Voluta elongata* Lightfoot, 1786 (an objective synonym; see para. 4 of my application) and not *Bulimus bovinus* Bruguière, 1792 (a questionable subjective synonym; see para. 6).

I have carefully given evidence of the continuous usage, in the older and more recent literature, of the name *fibratus* Martyn, 1784 for a New Caledonian species of *Placostylus* (para. 9). My application remains unaffected by Dr Abbott's superficial comments.

(3) Anthea Gentry
Secretariat, International Commission on Zoological Nomenclature

Dall (1907, p. 191) and Iredale (1921, p. 131) noted that copies of Martyn's *Universal Conchologist* show variations in both the text and plates. For example, the name *Nerita hebraea*, which is also involved in Dr Bouchet's application, appears as *Nerita litteris Hebraicis notatus* in the table (vol. 3, pl. 109) in some copies of the work, including that in the Natural History Museum, London. This is due to the specific name and descriptive phrase having been exchanged in two columns of text. The plates were engraved and then hand coloured; in his introduction to the work, Martyn (1784, vol. 1, p. 8) wrote 'The engraving will consist merely of a delicate outline, as a certain guide for the relative proportions of the parts: to this the utmost skill and labour of the painter will be added...'. The variability between copies of the work was noted in Opinion 456 (March 1957) but the work was taken as published according to the then existing *Rules of Nomenclature*. In the background material to the Opinion it was noted that 'There is nothing in any one copy... that contradicts or is inconsistent with anything in any other copy'. The work was rejected by the Commission for nomenclatural purposes because the author did not apply the 'principles of binominal nomenclature'. As mentioned in Dr Bouchet's application, nine names for New Zealand mollusc species have previously been made available from Martyn's work and Opinion 456 invited specialists to apply for the 'validation' of further names. The present application seeks to make two additional names available by use of the Commission's plenary powers.

The engravings in Chenu's 1845 work, referred to in Dr Abbott's comment, are black and white. Dall (1907, p. 185) referred to the work as a 'so-called reprint... which turns out to be entirely unreliable', and (p. 191) 'the discrepancies between the tables [in Martyn] and Chenu's list are so great that it does not seem reasonable to refer them merely to carelessness'. Dall concluded that 'it was from one of the altered copies [of Martyn] that Chenu's badly printed list was taken, adding a number of errors of his own'. Iredale (1921, p. 131) also noted that there were discrepancies between the two works.

Additional reference

Iredale, T. 1921. Unpublished plates of T. Martyn, conchologist. *Proceedings of the Malacological Society of London*, **14**(4): 131–134.

(4) Riccardo Giannuzzi-Savelli
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I strongly support Dr Bouchet's application for the conservation of *Natica hebraea* Martyn, 1786. This is a clear-cut case where a familiar well-known name of a species of wide economic importance should be stabilised and preserved.

Comment on the proposed precedence of POLYGYRIDAE Pilsbry, 1894 over MESODONTIDAE Tryon, 1866 (Mollusca, Gastropoda)

(Case 2642; see BZN **46**: 94–96)

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The application did not mention that both the generic name *Mesodon* and the specific name *leucodon* were first published by Férussac (1821, p. 37 folio, p. 33 quarto) in the synonymy of *Helix thyroidus* (Say, 1817). This had been noted by Kennard (1942, p. 117). Férussac attributed *Mesodon leucodon* to Rafinesque. The generic name *Mesodon* is available under Article 11e of the Code, with authorship ascribed to Férussac (1821) (Article 50g). Under Article 67l its type species is 'that nominal species first directly associated with it under an available species-group name' (i.e. *Helix thyroidus*). The specific name *leucodon* seems not to have been used as valid since its original (1821) publication and was not mentioned by Rafinesque himself in 1831. It was not listed by Sherborn (1927). Therefore, it would not be available through usage as the type species of *Mesodon*. Herrmannsen (1847, p. 40) designated *Helix thyroidus* Say, 1817 as the type species, which was reported by Kennard (1942, p. 117).

The genus *Mesodon* was described by Rafinesque in 1831 (p. 3), with the single included species *maculatum* (a nomen dubium), thereby making the name available from the time of its first appearance in synonymy (Férussac, 1821).

Rafinesque (1831) and subsequent authors (Scudder, 1882, p. 208; Tryon, 1887, pp. 113, 150) cited the name *Mesodon* from 'Rafinesque, 1819'. The name appears as *Mesodon leucodon* (Rafinesque in McMurtrie, 1819, p. 66) but both the generic and specific names are nomina nuda.

The family-group name MESODONTINAE was introduced by Tryon in the *American Journal of Conchology* (1866, p. 306), as stated in the application, and was discussed by him (1867, pp. 4, 38) in the continuation of his work. Tryon reprinted this work as a book, in which MESODONTINAE appeared or was discussed on pp. 55, 71 and 75. The book was published in parts which were available by subscription. We have not found any evidence to indicate that publication of parts of the book preceded publication of the corresponding parts of the journal.

The application requested that the family name POLYGYRIDAE Pilsbry, 1894 be given precedence over MESODONTIDAE Tryon, 1866. It would have been better to ask for 'family-group names based on *Polygyra* Say, 1818' to be given precedence as there is the same problem at subfamily and superfamily levels.

Additional references

Férussac, J.B.L. de'A. de. 1821. *Tableau systématique des animaux mollusques... suivis d'un prodrome général pour tous les mollusques terrestres ou fluviatiles vivants ou fossiles*, part 2

(Tableaux particulièrs des mollusques terrestres et fluviatiles, classe des gastéropodes: Tableau de la famille des Limaçons), pp. 1–94 folio, pp. 1–90 quarto.

Herrmannsen, A.N. 1847–1849. *Indicus generum Malacozoorum primordia*, vol. 2. xlii, 717 pp. Fischer, Cassellis.

Kennard, A.S. 1942. The *Histoire* and *Prodrome* of Férussac. *Proceedings of the Malacological Society of London*, **25**: 105–118.

Rafinesque, C.S. 1819. Conchology. Pp. 65–66 *in* McMurtrie, H., *Sketches of Louisville and its environs*. viii, 255 pp. Louisville, Kentucky.

Rafinesque, C.S. 1831. *Enumeration and account of some remarkable natural objects in the cabinet of Prof. Rafinesque, in Philadelphia; being animals, shells, plants, and fossils, collected by him in North America, between 1816 and 1831.* 8 pp. Philadelphia.

Scudder, M. 1882. *Nomenclator Zoologicus*. xix, 340 pp. Government Printing Office, Washington.

Sherborn, C.D. 1927. *Index Animalium, 1801–1850*, section 2. Part 14, pp. 3393–3746

Tryon, G.W. 1866–1868. *A monograph of the terrestrial Mollusca inhabiting the United States.* 159, xliv pp., 18 pls. Published by the author, Philadelphia.

Comment on the proposed conservation of the specific name of *Texigryphaea pitcheri* (Morton, 1834) (Mollusca, Bivalvia)

(Case 2683; see BZN **46**: 226–228)

R.W. Scott

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I would like to support the proposed conservation of the name *Gryphaea pitcheri* Morton, 1834. Although in 1970 I used the name *corrugata* for specimens that now would be called *pitcheri*, I agree that *corrugata* was inadequately described and its type locality cannot be determined so that topotypes cannot be collected. Fay also made this case in 1975. I believe that modern standards are more rigorous and that future taxonomic studies will be served better by ruling in favor of this case. This species is one of the most abundant and age-diagnostic species in this part of the Cretaceous section. It also has paleoecological significance. Stabilization of this name will permit future studies of phylogeny and paleobiogeography of this group of oysters to proceed without being sidetracked.

Comments on the proposed conservation of *Proptera* Rafinesque, 1819 (Mollusca, Bivalvia)

(Case 2558; see BZN **47**: 19–21)

(1) Arthur H. Clarke

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I wish to express my wholehearted support for the conservation of *Proptera* Rafinesque, 1819. Although the recently exhumed senior objective synonym *Potamilus* Rafinesque, 1818 has been used by some recent authors in faunal lists and other local studies, *Proptera* has been the overwhelming choice of authors of monographs and other taxonomically critical works.

The use of both *Proptera* and *Potamilus* for the same genus has led to confusion among non-specialists and will continue to do so. For example, one species of *Proptera* (*capax* Green, 1833) is included on our federal *List of Endangered and Threatened Species*, and disagreements among specialists about its correct name have weakened the perceived credibility of malacologists in contested cases involving the conservation of that species. Other examples could also have been cited but the point is that stable nomenclature is more than an academic convenience. The lack of stability hinders our ability to get on with much more serious biological issues, issues such as ensuring the very survival of species.

(2) Arthur E. Bogan
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We consider that simple priority should govern the choice of generic names in this case, and recommend against the proposed conservation of *Proptera* Rafinesque, 1819 by the suppression of *Potamilus* Rafinesque, 1818.

The generic concept for the species variously grouped with *Unio alatus* Say, 1817 has changed continuously over the last 170 years. This is a problem in unionid systematics. It is only in the past 20 years that some sort of stability in North American unionid nomenclature has arisen. This stability is based on re-examination of the types and taking the earliest available name regardless of what names may have been used for the last 30 years. Gordon (BZN **47**: 20, para. 6) remarked that Morrison's 1969 action was 'solely to reintroduce an unused Rafinesque name'. What would replacing one Rafinesque name with another accomplish? Morrison was working to bring about stability in the nomenclature by trying to recognize the earliest available names, especially those overlooked or ignored but validly proposed and with priority.

A survey of the use of *Potamilus* in the recent unionid literature was made. The molluscan section of the *Zoological Record* from 1969 to 1989 was examined for articles using *Potamilus*. Only one citation was found. This paucity of citations is not truly indicative of the use of *Potamilus* in the published literature. A sample of the extensive use of *Potamilus* in this period has been given to the Commission Secretariat, consisting of 104 citations by 84 authors from the United States, Canada and Great Britain. These consist of (i) state and federal agency surveys and reports (23 references); (ii) workshops and published symposia (6 papers); (iii) reports listing state or federal endangered or threatened species in *Potamilus* (22 references); (iv) reports of unionids in archaeological contexts (11 references); (v) journal papers using *Potamilus* (31 references); (vi) unionid surveys of river basins or states (4 books); (vii) checklists, dissertations, etc. (7 references).

Potamilus has been used in the United States Fish and Wildlife Endangered Species Program since 1974. Not only is it used for two species of *Potamilus* on the federal endangered species list but is used in a number of state endangered species lists as well. Since *Potamilus* is listed on the United States federal list of endangered species it has been picked up by the IUCN Red Data Book on endangered invertebrate species (IUCN, 1986).

The American Malacological Union and the Council of Systematic Malacologists working with the American Fisheries Society produced a checklist of the molluscan fauna of North America north of Mexico based on all available published literature. Several preliminary lists were widely circulated and a draft version published (American Malacological Union, 1985). All submitted comments were carefully considered. The first edition of this checklist was published as a special publication of the American Fisheries Society (Turgeon et al., 1988). This checklist uses *Potamilus*.

This survey illustrates that the use of *Potamilus* in the published literature is in fact widespread. This is in direct contrast to the impression given by Gordon (BZN **47**: 20, para. 8).

The International Commission on Zoological Nomenclature is accordingly asked:

(1) not to use its plenary powers to suppress the name *Potamilus* Rafinesque, 1818;

(2) to place on the Official List of Generic Names in Zoology the name *Potamilus* Rafinesque, 1818 (gender: masculine), type species by subsequent designation by Morrison (1969) *Unio alatus* Say, 1817;

(3) to place on the Official List of Specific Names in Zoology the name *alatus* Say, 1817, as published in the binomen *Unio alatus* (specific name of the type species of *Potamilus* Rafinesque, 1818).

Additional References

American Malacological Union. 1985. Suggested draft list of common names for mollusks occurring from America north of Mexico. *Shells and Sealife*, **17**(2): 45–85.

International Union for Conservation of Nature and Natural Resources. 1986. *1986 IUCN Red List of Threatened Animals*. 105 pp. International Union for Conservation of Nature and Natural Resources, Gland, Switzerland and Cambridge, U.K.

Turgeon, D.D., Bogan, A.E., Coan, E.V., Emerson, W.K., Lyons, W.G., Pratt, W.L., Roper, C.F.E., Scheltema, A., Thompson, F.G. & Williams, J.D. 1988. *Common and scientific names of aquatic invertebrates from the United States and Canada: Mollusks*. American Fisheries Society Special Publication no. 16. vii, 277 pp., 12 pls. Bethesda.

Comments on the proposed conservation of the specific names of *Aphrodita imbricata* Linnaeus, 1767 (currently *Harmothoe imbricata*) and *Aphrodita minuta* Fabricius, 1780 (currently *Pholoe minuta*) (Annelida, Polychaeta)

(Case 2452; see BZN **46**: 22–24)

(1) Mary E. Petersen

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Chambers & Heppell have pointed out that the specific name *imbricata* is threatened by the senior subjective synonym *Aphrodita lepidota* Pallas, 1766, and that *A. minuta*

Fabricius, 1780 is preoccupied by the senior primary homonym *Aphrodita minuta* Pennant, 1777.

I see no reason not to support conservation of the specific name *imbricata* as long as *lepidota* is believed to represent the same taxon. However, I suggest that a conditional suppression of *lepidota* would be preferable as this would leave the name *lepidota* available should it become desirable to recognize specific differences between some of the forms currently being referred to *imbricata*. As indicated below, this is not unlikely.

Harmothoe imbricata is generally considered to be well known and widely distributed. Critical examination of other such species (e.g. *Capitella capitata* by Grassle & Grassle, 1976; *Terebellides stroemii* by Williams, 1984; *Chaetopterus variopedatus* by Petersen, 1984 and in preparation) has revealed the 'well known' name in each case to be used for several species and has resulted in recognition of additional taxa, often those previously considered junior synonyms. That characters may be found at all levels, from behavioral to ultrastructural, has been elegantly shown by Westheide & Rieger (1987) for three very similar species of the *Microphthalmus listensis* complex, previously believed to be a single species.

Most authors have remarked on the great biological and morphological variation shown by specimens identified as *H. imbricata*, which is claimed to be cosmopolitan, but no one has yet undertaken a critical revision of the species on a worldwide or even northern European basis. We therefore still do not know how many distinct taxa are being referred to this name. The species undoubtedly varies greatly in color pattern and ornamentation of the scales, but it has also been reported to show variation in spawning season and reproductive biology.

In European waters, Rasmussen (1956; the Isefjord, Denmark) and Daly (1972; Cullercoats, England) found *H. imbricata* to have large eggs brooded under the elytra, whereas Cazaux (1968; Arcachon, France) found small eggs freely spawned. This suggests that two or more taxa are present here; reports of the taxon from other areas (e.g. Izuka, 1912, Japan; Blake, 1975, northern California) may represent something else again.

Linnaeus' original description of *imbricata* (type locality Iceland) does not mention any specific color pattern, only that the color pattern is variable. Variations similar to those described for *H. imbricata* as presently defined also occur in other scaleworms, e.g. *H. elisabethae* (McIntosh, 1900) (M.E. Petersen, unpublished observations).

The type locality of *lepidota* is between England and Belgium, in the southern North Sea, and Arcachon is on the Bay of Biscay (coast of France). If some of the free-spawning '*imbricata*' from Arcachon fit the description of *lepidota* and can be distinguished from Icelandic *imbricata* that brood their eggs, *imbricata* could be restricted to a brooding form (which seems to be the type of breeding biology most often reported for this species) and *lepidota* to a free-spawning form. Any redescription of *lepidota* should, of course, be based on material from as close to the type locality as possible, and not from Arcachon. Until a critical comparison of these forms has been made, I do not feel it is desirable to suppress *lepidota* unconditionally. It is possible that more than one taxon will be distinguished and I cannot see how conditional suppression could endanger nomenclatural stability.

Chambers & Heppell point out that the name *Pholoe minuta* (Fabricius, 1780) is threatened by the senior homonym *Aphrodita minuta* Pennant, 1777, erected for a species from off Anglesey, Wales (the Irish Sea). Revisions in progress (Chambers, see BZN **46**: 23; M.E. Petersen, in preparation) have shown that *P. minuta* has been misinterpreted by most later workers and thus is not as widespread as believed (Petersen, 1983, pp. 64–65). Although there are still some points that need clarification and require examination of newly collected material from the type locality (an attempt to obtain such is currently being made), the species is described in some detail, and it is desirable that the name *minuta* be retained for Fabricius' species.

It is really not clear whether Pennant merely created what he considered a more appropriate name for *lepidota* or whether he thought he had a new species. His description of *minuta* states only that the species is an 'APH. with small scales; slender; not an inch long.' (Pennant, 1777, p. 45, pl. 24, fig. 29; 1812, p. 87, pl. 26, fig. 4) and, together with the figure, could either be interpreted as a *Pholoe* or a polynoid, although the latter is the more likely. If a polynoid, the species could belong to any of a number of genera, and is either indeterminable or at best a junior synonym of *lepidota*. I fully agree with Chambers and Heppell that recognition of *minuta* Pennant serves no useful purpose, and I support their request for its suppression.

Acknowledgements

Susan Chambers (Edinburgh), Anthea Gentry (ICZN Secretariat), and the Department of Mollusks, Smithsonian Institution, Washington, D.C., provided help with the early literature. The manuscript was read by Dr Claus Nielsen and Danny Eibye-Jacobsen, Copenhagen, whose comments and suggestions are gratefully acknowledged.

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Daly, J.M. 1972. The maturation and breeding biology of *Harmothoe imbricata* (Polychaeta: Polynoidae). *Marine Biology*, **12**(1): 53–66.

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Williams, S.J. 1984. The status of *Terebellides stroemi* (Polychaeta; Trichobranchidae) as a cosmopolitan species, based on a worldwide morphological survey, including description of new species. Pp. 118–142 *in* P.A. Hutchings (Ed.), *Proceedings of the First International Polychaete Conference, Sydney*. The Linnean Society of New South Wales.

(2) Susan Chambers & David Heppell
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We were interested to see Dr Petersen's comments (above) on the proposed conservation of the specific names of *Aphrodita imbricata* Linnaeus, 1767 and *A. minuta* Fabricius, 1780, and were pleased to have her support and additional information regarding *A. minuta.* We also carefully considered her alternative proposals for conditional suppression of the specific name *lepidota*, but are unable to agree with that for the reasons given below.

We agree that there are probably several taxa included under *H. imbricata*, and that *H. lepidota* is probably a colour form of the same taxon, given our current knowledge of the species. If the name *lepidota* were to be suppressed only conditionally, however, it would not be available for use for a segregate species unless it could be shown that the morphological, developmental or behavioural differences which characterized the new species were present in individuals of the '*lepidota*' colour form, but not in those of typical '*imbricata*'. As the '*lepidota*' form is well known from populations studied throughout the distribution range of *imbricata*, we doubt that any such correlation between the distinctive colour pattern and other observable differences would have been overlooked by all previous workers.

There seem, therefore, to be only two alternative actions: to acknowledge the priority of *lepidota* and use the name in place of *imbricata*; or to suppress *lepidota* and accept *imbricata* as the valid name. Perhaps it would have been better if Malgren, or some other worker last century, had accepted *lepidota* as the name to use, but they were working before an agreed code of nomenclature had been accepted. They regarded the name *imbricata* as representing the typical form of the species, and *lepidota* as the name of the variety of it. The relative priority of the names was subordinate to their interpretation. We believe sufficient usage of the names in that sense warrants conservation of the name of the typical form as the name of the species, and this can only effectively be done by total suppression of the name of the variety.

Even if some of the 'free-spawning' individuals of '*imbricata*' were of the '*lepidota*' form, we do not think that would justify retention of the name. For such individuals to be recognized as a distinct species other, primarily morphological, characters would need to be associated, and we believe it would be impossible, in the absence of original type material, to show that these were found in the specimens described by Pallas. It would be preferable to introduce a new name, with a full new description. As Cazaux's observations have not been repeated elsewhere the possibility remains that the developmental anomalies observed by him were an artefact of the handling techniques involved. As *H. imbricata* in laboratory conditions will readily shed scales, it seems not unlikely that they would also shed eggs normally brooded under the scales. Cazaux was unable to find any other point of distinction from normal *H. imbricata.* He did not give a description of the parent animals and, as noted by Daly (1972), did not describe those stages between the egg and the trochophore which correspond to the protected stage.

After reconsidering our original proposals and responding to the comments, we believe that our request for the suppression of the name *lepidota* for the purposes of the Principle of Priority should stand.

Reply to a comment on the proposed precedence of *Aphonopelma* Pocock, 1901 (Arachnida, Araneae) over *Rhechostica* Simon, 1892

(Case 2662; see BZN **46**: 165–166, 189–190; **47**: 126–127)

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In his comment on this case Raven (BZN **47**: 126–127) refers to the listing of *Rhechostica* in catalogues. However, the mentioning of names in catalogues, lists and nomenclators does not constitute usage for the purposes of the Principle of Priority (see Article 79c(2,i) of the Code).

Raven's discussion of the usage of *Eurypelma* Koch, 1850 is not relevant to the proposed precedence of *Aphonopelma* over *Rhechostica*. As we pointed out before (BZN **46**: 165, para. 4), *Rhechostica* had remained unused for 93 years until resurrected by Raven (1985). One of us (H.W.L.) has found that amongst North American arachnologists who have talked or written about this case all except one (R.C. West; see BZN **46**: 190) support the rejection of *Rhechostica*.

Comment on the proposed conservation of *Ixodes angustus* Neumann, 1899 and *I. woodi* Bishopp, 1911 (Arachnida, Acari) by replacement of the holotype of *I. angustus*

(Case 2696; see BZN **46**: 167–169)

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Non-systematists become habituated to the name used for any species of applied importance. The knowledge of such species becomes embodied in textbooks and reports using the familiar name, so that any taxonomic reinterpretation of the species takes a while to become widely understood and accepted. Name changes for familiar species are therefore unpopular, but may be taxonomically necessary for biological reasons. Changes in usage of important species names are unjustifiable simply to fulfil the Principle of Priority and other rules of the Code.

In the field of medical and veterinary entomology there are conspicuous precedents for replacement of type specimens in order to conserve the accepted meaning of a species name. For example, the case of the mosquito *Aedes aegypti* (Linnaeus, 1762) involving designation of a neotype as proposed by Mattingly et al. (BZN **19**: 208–219) was settled by Opinion 711 (1964). The case of *Culex pipiens* Linnaeus, 1758 involved designation of a neotype by Harbach et al. (1985) without recourse to the Commission. Both cases involved keeping the familiar name for a medically important species, despite conflicting evidence concerning the biological identity of original type specimens.

The proposed conservation of the names *Ixodes angustus* Neumann, 1899 and *I. woodi* Bishopp, 1911, involving replacement of the holotype of *I. angustus* by the neotype proposed by Robbins & Keirans in keeping with accustomed usage, should be supported as the most expedient solution to the taxonomic problem raised by their observation that the holotypes of these nominally different species appear to be conspecific, whereas these two names have always been used unambiguously for two biologically distinct tick species of some medico-veterinary importance.

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Comments on the conservation of the spelling of the specific name of *Macrocheles robustulus* (Berlese, 1904) (Arachnida, Acarina)

(Case 2725; see BZN **47**: 24–26)

The proposed ruling that the accepted spelling of the specific name of the mite *Macrocheles robustulus* (Berlese, 1904) be deemed correct although it was first published as '*rubustulus*' has been supported in letters received from 31 persons: Richard C. Axtell (*North Carolina, U.S.A.*); Gerald T. Baker (*Misssissippi, U.S.A.*); A.K. Datta (*Assam, India*); R.M. Emberson (*Canterbury, New Zealand*); G.P. Hall (*Western Australia*); Robert D. Hall (*Missouri, U.S.A.*); W. Hirschmann (*Nürnberg, Fed. Rep. Germany*); T.M. Ho (*Kuala Lumpur, Malaysia*); E. Holm (*New South Wales, Australia*); Robert W. Husband (*Michigan, U.S.A.*); K.H. Hyatt (*Wales, U.K.*); H. Koehler (*Bremen, Fed. Rep. Germany*); G.W. Krantz (*Oregon, U.S.A.*); E.E. Lindquist (*Ontario, Canada*); M. Luxton (*Liverpool, England*); W. Niedbala (*Poznan, Poland*); Roy A. Norton (*New York, U.S.A.*); James H. Oliver, Jr. (*Georgia, U.S.A.*); J.C. Otto (*Bremen, Fed. Rep. Germany*); F. Pegazzano (*Firenze, Italy*); G.W. Ramsay (*Auckland, New Zealand*); M.K.P. Smith Meyer (*Pretoria, South Africa*); R.V. Southcott (*South Australia*); M. Spear (*Pennsylvania, U.S.A.*); Victor F. Stanis (*Pennsylvania, U.S.A.*); G. Takaku (*Sapporo, Japan*); P.D. Theron (*Potchefstroom, South Africa*); M.B. Usher (*York, England*); M.M.H. Wallace (*Canberra, Australia*); D.E. Walker (*Florida, U.S.A.*); F.E. Wendt (*Bremen, Fed. Rep. Germany*).

Comment on the proposed conservation of *Bathynomus* A. Milne Edwards, 1879 (Crustacea, Isopoda)

(Case 2721; see BZN **47**: 27–29)

Jacques Forest
Muséum National d'Histoire Naturelle, 61 rue de Buffon, 75231 Paris, France

Je me permets d'apporter un appui total à la proposition présentée par Martin & Kuck, visant à conserver le nom de *Bathynomus*, établi pour un genre d'Isopode par A. Milne Edwards en 1879 et menacé par une mise en synonymie récente avec le genre fossile *Palaega* Woodward, 1870.

Je suis tout à fait d'accord avec l'argumentation des deux auteurs de la requète, retenant deux points principaux:

1. La synonymie des deux genres est douteuse.
2. Le nom de *Bathynomus* a été appliqué de façon continue à un nombre croissant d'espèces et son emploi est habituel dans la littérature carcinologique.

Dans l'intérêt de la stabilité de la nomenclature, je souhaite vivement que la Commission préserve l'usage de *Bathynomus*.

Comments on the proposed designation of *Lysianax cubensis* Stebbing, 1897 as the type species of *Shoemakerella* Pirlot, 1936 (Crustacea, Amphipoda)

(Case 2711; see BZN **46**: 236–238)

(1) Richard C. Brusca
Natural History Museum, P.O. Box 1390, San Diego, California 92112, U.S.A.

I would like to state briefly my support for the proposition of Lowry & Stoddart favoring the designation of the nominal species *Lysianax cubensis* Stebbing, 1897 as the type species of *Shoemakerella* Pirlot, 1936. I believe Lowry & Stoddart are correct in their assessment of the situation, and that other amphipod workers would welcome this official clarification of a long-standing problem.

(2) Michael H. Thurston
Institute of Oceanographic Sciences, Deacon Laboratory, Godalming, Surrey GU8 5UB, U.K.

I support the case made for the designation of *L. cubensis* as the type species of *Shoemakerella*.

It is clear that Pirlot (1936) based his concept of *Shoemakerella* on his own material and on the specimens received from Shoemaker. The separation of *L. nasuta* and *L. cubensis* is valid. While the illustrations provided by Dana lack much of the detail required by modern taxonomists, such detail as is given can be relied upon. The structure of uropod 3 provides an unequivocal separation of the two species.

(3) Support for the proposals on BZN **46**: 237 was also received from Prof Krzysztof Jażdżewski, Uniwersytet Łodźki, Łódź, Poland.

Comments on the proposed conservation of the specific name of *Curculio viridicollis* Fabricius, 1792 (currently *Phyllobius viridicollis*; Insecta, Coleoptera)

(Case 2678; see BZN **46**: 241–243)

(1) M.A. Alonso-Zarazaga
Sección de Entomologia, Museo Nacional de Ciencias Naturales, J. Gutierrez Abascal 2, 28006 Madrid, Spain

I cannot support the application to conserve Fabricius's specific name *viridicollis*. We (entomologists and biologists in general) should be prepared to handle synonymies, even of common species. Moreover, a lectotype of *Curculio cloropus* Linnaeus, 1758 has been designated, thereby fixing the identity of this species. I do not want to be an accomplice of Fabricius (and other authors) who made a large number of errors simply because of scientific procedure. If an error is found, it should be corrected in a publication, and be checked (and the correction accepted) by other workers interested in the same subject.

I would like to call attention to the fact that the name *Phyllobius cloropus* has been used recently (Tempère & Péricart, 1989, pp. 47, 475) as the valid name for the species. These French authors took the logical attitude which I defend.

Additional reference

Tempère, G. & Péricart, J. 1989. Coléoptères Curculionidae, quatrième partie. *Faune de France*, **74**: 1–534.

(2) Editorial note

Secretariat, International Commission on Zoological Nomenclature

The paper by Thompson & Alonso-Zarazaga (1988), in which they demonstrated the synonymy between *C. cloropus* and *C. viridicollis* (and in which Thompson wrote (p. 84) that he proposed to apply to the Commission to be able to use the junior synonym *viridicollis* as the name for the species), is cited in the recently published update of *Coléoptères Curculionidae* (1989). Dr J. Péricart (*10 rue Habert, F-77130 Montereau, France*) has noted (in litt.) that he had accepted changes in the nomenclature resulting from strict compliance with the Principle of Priority, but only if they had been adopted in previous publications. In other cases, where the name in use was the younger synonym, he had kept that name although indicating that priority would dictate the senior synonym (unless there had been a Commission ruling to the contrary).

According to this procedure he (Péricart) would have used the name *viridicollis* for the species but, by mistake, did not do so. Many changes had been needed during the printing of the publication and this particular one had been overlooked. He, himself, strongly favoured using the name *viridicollis*.

Comment on the proposed precedence of *Culicoides puncticollis* (Becker, 1903) over *C. algecirensis* (Strobl, 1900) (Insecta, Diptera)

(Case 2716; see BZN **46**: 179–180, **47**: 48)

G.B. White (Editor, *Medical & Veterinary Entomology*)
c/o The Royal Entomological Society, London SW7 5HU, U.K.

I support Dr Boorman's application to uphold *Culicoides puncticollis* (Becker, 1903) for two reasons:

First, to maintain consistency in usage (Article 23b) of *puncticollis* as the specific name of a well known biting midge that 'is readily identified and not involved in any taxonomic problem' (BZN **46**: 179, para. 4).

Secondly, the application wisely allows for the possibility that *C. algecirensis* (Strobl, 1900) may, in the light of future studies, prove to be not synonymous with

C. puncticollis. Biosystematics of haematophagous Diptera is increasingly complicated by the unveiling of sibling species complexes (see Service, 1988). In such cases, available synonyms may be ascribed appropriately to each newly recognised biological species comprising a complex. Until the specific integrity of *C. puncticollis* (sensu lato) is researched throughout its range in the Mediterranean, it will be advisable to give precedence to the name *puncticollis* but also to retain *algecirensis*.

Additional reference

Service, M.W. 1989. *Biosystematics of haematophagous insects*. The Systematics Association special volume No. 37. xi, 363 pp.

Comments on the proposed suppression of *Culex peus* Speiser, 1904 to conserve *C. stigmatosoma* Dyar, 1907 and *C. thriambus* Dyar, 1921 (Insecta, Diptera)

(Case 2702; see BZN **46**: 247–249)

(1) G.B. White (Editor, *Medical & Veterinary Entomology*)
c/o The Royal Entomological Society, London SW7 5HU, U.K.

It is a sad coincidence that the proposed suppression of *Culex peus* Speiser, 1904 comes soon after the death in 1986 of Fritz Peus, doyen of German culicidologists. This American mosquito's name is merely a homonym, not an eponym, of the man's and there was no connection between them.

A convincing argument is advanced by Eldridge & Harbach for upholding the name *C. thriambus* Dyar, 1921 and suppressing its senior synonym *C. peus* which had been misapplied to the more widespread and medically important species *C. stigmatosoma* Dyar, 1907 in most publications during the years 1958–1988.

The alternative of designating the holotype of *C. stigmatosoma* as neotype of *C. peus* would involve setting aside the latter's holotype, an action likely to provoke some criticism, in order to sustain recent usage of the name *C. peus*. However, the standard textbook of North American mosquitoes by Carpenter & LaCasse (1955) had applied the name *C. stigmatosoma* as now proposed and some workers have continued with this usage throughout. We are told in the proposal that editors have quickly readopted the name *C. stigmatosoma* since it was reported by Strickman (1988) that *C. peus* is a senior synonym of *C. thriambus* and not of *C. stigmatosoma*.

In view of the extensive literature pertaining to the species *C. stigmatosoma*, much of it published under the name *C. peus*, much confusion would arise if *C. peus* is now given precedence over *C. thriambus*. Therefore, I support the proposal to suppress *C. peus*.

Additional reference

Carpenter, S.J. & LaCasse, W.J. 1955. *Mosquitoes of North America (north of Mexico)*. vi, 360 pp. University of California Press, Berkeley.

(2) Daniel Strickman
Armed Forces Research Institute of Medical Sciences, APO San Francisco, California 96346-5000, U.S.A.

The authors of the application were kind enough to allow me to review their manuscript before it was published. I completely agree with their action. Their arguments are well-reasoned and pertinent. If the application is accepted, it will result in a useful stabilization of nomenclature for two important mosquito species of the northern hemisphere.

Comments on the proposed confirmation of *Griffithides longiceps* Portlock, 1843 as the type species of *Griffithides* Portlock, 1843 (Trilobita)

(Case 2762; see BZN **47**: 114–116)

(1) Sir James Stubblefield
35 Kent Avenue, Ealing, London W13 8BE, U.K.

I strongly support the proposal to accept *Griffithides longiceps* Portlock, 1843 as the type species of *Griffithides* Portlock, 1843, and *Asaphus globiceps* Phillips, 1836 as the type species of *Bollandia* Reed, 1943.

(2) H.B. Whittington
Department of Earth Sciences, University of Cambridge, Downing Street, Cambridge CB2 3EQ, U.K.

I write in strong support of Case 2762, the application to conserve the meaning of the Carboniferous trilobite name *Griffithides* Portlock, 1843 by setting aside an overlooked type species designation. I believe it will be in the best interests of stability in nomenclature to take this action.

OPINION 1608

Marssonopora Lang, 1914 (Bryozoa, Cheilostomata): *Membranipora densispina* Levinsen, 1925 designated as the type species

Ruling

(1) Under the plenary powers all previous designations of type species for the nominal genus *Marssonopora* Lang, 1914 are hereby set aside and *Membranipora densispina* Levinsen, 1925 is designated as type species.

(2) The name *Marssonopora* Lang, 1914 (gender: feminine), type species by designation under the plenary powers in (1) above, *Membranipora densispina* Levinsen, 1925, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *densispina* Levinsen, 1925, as published in the binomen *Membranipora densispina* (specific name of the type species of *Marssonopora* Lang, 1914), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2657

An application for the designation of *Membranipora densispina* Levinsen, 1925 as the type species of *Marssonopora* Lang, 1914 was received from Dr P.D. Taylor (*The Natural History Museum, London, U.K.*) & Prof E. Voigt (*Universität Hamburg, Hamburg, Fed. Rep. Germany*) on 8 April 1988. After correspondence the case was published in BZN **46**: 88–90 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 89–90. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Schuster was on leave of absence.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

densispina, Membranipora, Levinsen, 1925, *Kongelige Danske Videnskabernes Selskabs Skrifter, Naturvidenskabelig og mathematisk Afdeling*, 8, **7**: 316.

Marssonopora Lang, 1914, *Geological Magazine*, NS, decade 6, **1**: 438.

OPINION 1609

Drepanites Mojsisovics, 1893 and *Hyphoplites* Spath, 1922 (Mollusca, Ammonoidea): conserved

Ruling

(1) It is hereby ruled that *A catalogue of the organic remains of the County of Wilts.* by Benett (1831) is an available work.

(2) Under the plenary powers the following names are hereby suppressed:

(a) the generic name *Drepanites* Benett, 1831, and all other uses of that name prior to *Drepanites* Mojsisovics, 1893, for the purposes of both the Principle of Priority and the Principle of Homonymy;

(b) the specific name *striatus* Benett, 1831, as published in the binomen *Drepanites striatus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(3) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Drepanites* Mojsisovics, 1893 (gender: masculine), type species by subsequent designation by Diener (1915) *Arpadites (Drepanites) hyatti* Mojsisovics, 1893;

(b) *Hyphoplites* Spath, 1922 (gender: masculine), type species by original designation *Ammonites falcatus* Mantell, 1822.

(4) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *hyatti* Mojsisovics, 1893, as published in the binomen *Arpadites (Drepanites) hyatti* (specific name of the type species of *Drepanites* Mojsisovics, 1893);

(b) *falcatus* Mantell, 1822, as published in the binomen *Ammonites falcatus* (specific name of the type species of *Hyphoplites* Spath, 1922).

(5) The work *A catalogue of the organic remains of the County of Wilts.* by E. Benett (1831), as ruled in (1) above, is hereby placed on the Official List of Works Approved as Available for Zoological Nomenclature.

(6) The name *Drepanites* Benett, 1831, as suppressed in (2)(a) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(7) The name *striatus* Benett, 1831, as published in the binomen *Drepanites striatus* and as suppressed in (2)(b) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2668

An application for the conservation of *Drepanites* Mojsisovics, 1893 and *Hyphoplites* Spath, 1922 was received from Drs E.E. Spamer & A.E. Bogan (*Academy of Natural Sciences, Philadelphia, U.S.A.*) on 9 June 1988 and published in BZN **46**: 19–21 (March 1989). Notice of the case was sent to appropriate journals.

An opposing comment by Mr C.W. Wright (*Beaminster, Dorset, U.K.*) was published in BZN **46**: 187–188 (September 1989), together with a reply by the Executive Secretary of the Commission.

A comment was received from Prof D.T. Donovan (*Department of Geological Sciences, University College London, London, U.K.*), who noted that Miss Benett presented a copy of her 1831 *Catalogue of the organic remains of the County of Wilts.* to the British Museum, Bloomsbury, inscribed 'British Museum, from the Author', indicating her wish for the work to be publicly available.

A recent publication (reference below) by the authors of the application and one other has given in detail the background to Benett's work and the extensive way in which it was distributed and taken note of by her contemporaries. The paper documents the large number of taxa established by Benett, and cites the present localities of her collection which includes type material for species proposed by her and subsequent authors; *Drepanites striatus* Benett is discussed on p. 144 et seq.

Spamer, E.E., Bogan, A.E. & Torrens, H.S. 1989. Recovery of the Eltheldred Benett collection of fossils mostly from Jurassic-Cretaceous strata of Wiltshire, England, analysis of the taxonomic nomenclature of Benett (1831), and notes and figures of type specimens contained in the collection. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **141**: 115–180.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 20. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza (in part), Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 2: Kabata and Martins de Souza (in part).

Schuster was on leave of absence.

Martins de Souza said there did not appear sufficient reason to suppress the name *Drepanites* Benett, 1831 to conserve *Drepanites* Mojsisovics, 1893.

Original references

The following are the original references to the names and work placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

Drepanites Benett, 1831, *A catalogue of the organic remains of the County of Wilts.*, p. 3, pl. 16.

Drepanites Mojsisovics, 1893, *Abhandlungen der Kaiserlich-Königlichen Geologischen Reichsanstalt*, **6**(2): 495.

falcatus, Ammonites, Mantell, 1822, *The fossils of the South Downs; or illustrations of the geology of Sussex*, p. 117, pl. 21, figs. 6, 12.

hyatti, Arpadites (Drepanites), Mojsisovics, 1893, *Abhandlungen der Kaiserlich-Königlichen Geologischen Reichsanstalt*, **6**(2): 495.

Hyphoplites Spath, 1922, *Transactions of the Royal Society of Edinburgh*, **53**(6): 110.

striatus, Drepanites, Benett, 1831, *A catalogue of the organic remains of the County of Wilts.*, p. 3, pl. 16.

Benett, E. 1831. *A catalogue of the organic remains of the County of Wilts.* iv, 9 pp., 18 pls. Vardy, Warminster.

The following is the reference for the designation of *Drepanites hyatti* as the type species of *Drepanites* Mojsisovics, 1893:

Diener, C. 1915. Cephalopoda triadica. *In* Frech, F. (Ed.), *Fossilium catalogus.* 1. Animalia. (8), p. 129.

OPINION 1610

Valanginites Sayn in Kilian, 1910 (Mollusca, Ammonoidea): authorship of the genus confirmed, and *Ammonites nucleus* Roemer, 1841 confirmed as the type species

Ruling

(1) Under the plenary powers it is hereby ruled that:

(a) the specific name *nucleus* Phillips, 1829, as published in the binomen *Ammonites nucleus*, and all other uses of that name prior to *Ammonites nucleus* Roemer, 1841, is hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;

(b) all designations of type species for the nominal genus *Valanginites* Sayn in Kilian, 1910 before that of *Ammonites nucleus* Roemer, 1841 by Roman (1938) are hereby set aside.

(2) The name *Valanginites* Sayn in Kilian, 1910 (gender: masculine), type species *Ammonites nucleus* Roemer, 1841 by the ruling in (1)(b) above, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *nucleus* Roemer, 1841, as published in the binomen *Ammonites nucleus* (specific name of the type species of *Valanginites* Sayn in Kilian, 1910), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *nucleus* Phillips, 1829, as published in the binomen *Ammonites nucleus* and as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2403

An application for the confirmation of Sayn in Kilian (1910) as the author of the nominal genus *Valanginites*, and of *Ammonites nucleus* Roemer, 1841 as its type species, was received from Drs P.F. Rawson (*University College London, London, U.K.*) and E. Kemper (*Bundesanstalt für Geowissenschaften und Rohstoffe, Hannover, Fed. Rep. Germany*) on 18 January 1982. After correspondence, and a delay arising from a move by the senior author, the case was published in BZN **46**: 91–93 (June 1989). Notice of the case was sent to appropriate journals. Comments in support were received from Mr C.W. Wright (*Beaminster, Dorset, U.K.*) and Dr M.K. Howarth (*The Natural History Museum, London, U.K.*).

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 92. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Macpherson.

Schuster was on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

nucleus, *Ammonites*, Phillips, 1829, *Illustrations of the Geology of Yorkshire*, p. 174.

nucleus, *Ammonites*, Roemer, 1841, *Die Versteinerungen des Norddeutschen Kreidegebirges*, part 2, p. 87.

Valanginites Sayn in Kilian, 1910, *Lethaea geognostica*, Teil 2 (Das Mesozoicum), Band 3 (Kreide), Liefrung 2, p. 194.

The following is the reference for the designation of *Ammonites nucleus* Roemer, 1841 as the type species of *Valanginites*:

Roman, F. 1938. *Les ammonites jurassiques et crétacées. Essai de genera*, p. 386.

OPINION 1611

Heliophanus kochii Simon, 1868 (Arachnida, Araneae): specific name conserved

Ruling

(1) Under the plenary powers the specific name *albosignatus* L. Koch, 1867, as published in the binomen *Heliophanus albosignatus*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *kochii* Simon, 1868, as published in the binomen *Heliophanus kochii*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *albosignatus* L. Koch, 1867, as published in the binomen *Heliophanus albosignatus* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2647

An application for the conservation of the specific name of one of the jumping spiders, *Heliophanus kochii* Simon, 1868, but with the spelling *kochi*, was received from Dr J. Prószyński (*Zaklad Zoologii WSPR, Siedlce, Poland*) on 4 March 1988. The application sought the suppression of the senior subjective synonym *albosignatus* L. Koch, 1867. After correspondence the case was published in BZN **46**: 108–109 (June 1989). Notice of the case was sent to appropriate journals.

The application was supported by Mr F.R. Wanless (*Department of Zoology, The Natural History Museum, London, U.K.*).

It was noted on the voting papers that a recent major monograph by Wesolowska (1986) on the genus *Heliophanus* C.L. Koch, 1835 uses the spelling *kochi*; see also BZN **46**:108–109, para. 5.

The proposals of para. 6 on BZN **46**: 109, (1)(a) for the suppression of the specific name *albosignatus* L. Koch, 1867, and (1)(b) that *kochi* should be deemed to be the correct spelling of the specific name first published as *kochii* by Simon (1868), were presented separately for voting.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 109, amended as above. At the close of the voting period on 1 June 1990 the votes were as follows:

Proposal (1)(a). Affirmative votes — 19: Bayer, Bock, Cocks, Corliss, Hahn, Halvorsen, Heppell, Kabata, Kraus, Martins de Souza, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Willink

Negative votes — 7: Cogger, Holthuis, Lehtinen, Macpherson, Mahnert, Minelli and Uéno.

Proposal (1)(b). Affirmative votes — 13: Bock, Corliss, Halvorsen, Kraus, Lehtinen, Minelli, Nielsen, Nye, Ride, Starobogatov, Thompson, Trjapitzin, Willink

Negative votes — 13: Bayer, Cocks, Cogger, Hahn, Heppell, Holthuis, Kabata, Macpherson, Mahnert, Martins de Souza, Mroczkowski, Savage and Uéno.

Schuster was on leave of absence.

Proposal (1)(a) was thus carried, but since there was no majority for proposal (1)(b) the name *kochii* Simon, 1868 is conserved with its original spelling.

Dupuis abstained from both votes, commenting 'Je crains que les habitudes de Simon, en matière de nomenclature, aient comporté beaucoup de précipitation et diverses négligences. Je ne peux donc pas me prononcer sur la confiance aveugle qu'on paraît lui accorder en matière de taxonomie'. Heppell commented that 'the Commission should not be asked to rule on the correct spelling of individual specific names which differ only in an *–i* or *–ii* termination. It is already difficult enough in many cases to discover which variant is the correct original spelling, and to require zoologists to consult also the Official Lists for such a trivial matter seems quite wrong. Many zoologists (and zoological editors) routinely employ a single *–i* termination because of their incorrect interpretation of the rules. Others believe that the *–i* and *–ii* terminations can simply be regarded as permissible alternatives. It would be far better to have such a simple remedy to this vexed and continuing problem than to have individual cases determined piecemeal on the basis of perceived usage'.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

albosignatus, Heliophanus, L. Koch, 1867, *Verhandlungen der Zoologisch–Botanischen Gesellschaft in Wien*, **17**: 871.

kochii, Heliophanus, Simon, 1868, *Annales de la Société Entomologique de France*, (4)**8**: 699.

OPINION 1612

Attus penicillatus Simon, 1875 (currently *Sitticus penicillatus*; Arachnida, Araneae): specific name conserved

Ruling

(1) Under the plenary powers the following specific names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) *illibatus* Simon, 1868, as published in the binomen *Attus illibatus*;
(b) *inequalipes* Simon, 1868, as published in the binomen *Attus inequalipes*;
(c) *guttatus* Thorell, 1875, as published in the binomen *Attus guttatus*.

(2) The name *penicillatus* Simon, 1875, as published in the binomen *Attus penicillatus*, is hereby placed on the Official List of Specific Names in Zoology.

(3) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:

(a) *illibatus* Simon, 1868, as published in the binomen *Attus illibatus* and as suppressed in (1)(a) above;
(b) *inequalipes* Simon, 1868, as published in the binomen *Attus inequalipes* and as suppressed in (1)(b) above;
(c) *guttatus* Thorell, 1875, as published in the binomen *Attus guttatus* and as suppressed in (1)(c) above.

History of Case 2648

An application for the conservation of the specific name of *Attus penicillatus* Simon, 1875 was received from Dr J. Prószyński (*Zakład Zoologii WSPR, Siedlce, Poland*) on 4 March 1988. After correspondence the case was published in BZN **46**: 110–111 (June 1989). Notice of the case was sent to appropriate journals.

The application was supported by Mr F.R. Wanless (*Department of Zoology, The Natural History Museum, London, U.K.*).

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 111. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 18: Bayer, Bock, Cocks, Corliss, Hahn, Halvorsen, Heppell, Kabata, Kraus, Martins de Souza, Minelli, Nielsen, Nye, Ride, Starobogatov, Thompson, Trjapitzin, Willink

Negative votes — 8: Cogger, Holthuis, Lehtinen, Macpherson, Mahnert, Mroczkowski, Savage and Uéno.

Schuster was on leave of absence.

Dupuis abstained: Simon's nomenclatural acts had caused very many problems (see comment on BZN **47**: 223). Uéno noted that the types of all the nominal species were preserved in major museums, and commented that future specialists might conclude that the taxa concerned were distinct. Cogger and Mroczkowski agreed, adding that the applicant's aim could be met by giving precedence to the name *penicillatus*.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

guttatus, *Attus*, Thorell, 1875, *Horae Societatis Entomologicae Rossicae*, **11**: 119.

illibatus, *Attus*, Simon, 1868, *Annales de la Société Entomologique de France*, (4)**8**: 541.

inequalipes, *Attus*, Simon, 1868, *Annales de la Société Entomologique de France*, (4)**8**: 614.

penicillatus, *Attus*, Simon, 1875, *Annales de la Société Entomologique de France*, (5)**5**: xcii. Bulletin des Séances (Séance du 28 Avril 1875).

OPINION 1613

Lucicutia Giesbrecht in Giesbrecht & Schmeil, 1898: conserved, and *Pseudaugaptilus longiremis* Sars, 1907: specific name conserved (both Crustacea, Copepoda)

Ruling

(1) Under the plenary powers the following names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:

(a) the generic name *Isochaeta* Giesbrecht, 1889;

(b) the specific name *longisetosus* Thompson, 1903, as published in the binomen *Isochaeta longisetosus*.

(2) The name *Lucicutia* Giesbrecht in Giesbrecht & Schmeil, 1898 (gender: feminine), type species by indication (Article 67h) *Leuckartia flavicornis* Claus, 1863, is hereby placed on the Official List of Generic Names in Zoology.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *flavicornis* Claus, 1863, as published in the binomen *Leuckartia flavicornis* (specific name of the type species of *Lucicutia* Giesbrecht in Giesbrecht & Schmeil, 1898);

(b) *longiremis* Sars, 1907, as published in the binomen *Pseudaugaptilus longiremis*.

(4) The name LUCICUTIIDAE Sars, 1902 (type genus *Lucicutia* Giesbrecht in Giesbrecht & Schmeil, 1898) is hereby placed on the Official List of Family-Group Names in Zoology.

(5) The name *Isochaeta* Giesbrecht, 1889, as suppressed in (1)(a) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

(6) The name *longisetosus* Thompson, 1903, as published in the binomen *Isochaeta longisetosus* and as suppressed in (1)(b) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2666

An application for the conservation of *Lucicutia* Giesbrecht in Giesbrecht & Schmeil, 1898 and *Pseudaugaptilus longiremis* Sars, 1907 was received from Dr K. Hulsemann (*Biologische Anstalt Helgoland, Hamburg, Fed. Rep. Germany*) on 25 May 1988 and published in BZN **46**: 97–100 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 98–99. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 22: Bayer, Bock, Cocks, Corliss, Dupuis, Halvorsen, Heppell, Kabata, Kraus, Macpherson, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 5: Cogger, Hahn, Holthuis, Lehtinen and Mahnert.

Schuster was on leave of absence.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

flavicornis, Leuckartia, Claus, 1863, *Die Frei Lebenden Copepoden mit Besonderer Berücksichtigung der Fauna Deutschlands, der Nordsee und des Mittelmeeres*, p. 183.

Isochaeta Giesbrecht, 1889, *Atti della Reale Accademia dei Lincei*, (4)**5**(11), semestre 1: 812.

longiremis, Pseudaugaptilus, Sars, 1907, *Bulletin de l'Institut Océanographique*, **101:** 24.

longisetosus, Isochaeta, Thompson, 1903, *The Annals and Magazine of Natural History*, (7)**12**(67): 26.

Lucicutia Giesbrecht *in* Giesbrecht & Schmeil, 1898, *Das Tierreich*, **6**: 110.

LUCICUTIIDAE Sars, 1902, *An account of the Crustacea of Norway*, vol. 4 (Copepoda, Calanoida), parts 7 and 8 (Centropagidae and Diaptomidae), p. 73.

OPINION 1614

Trapezia Latreille, 1828 (Crustacea, Decapoda): conserved

Ruling

(1) Under the plenary powers the generic name *Trapecia* Berthold, 1827 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.

(2) The name *Trapezia* Latreille, 1828 (gender: feminine), type species by subsequent designation by H. Milne Edwards (1842) *Trapezia dentifrons* Latreille, 1828 (a junior subjective synonym of *Cancer cymodoce* Herbst, 1801), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *cymodoce* Herbst, 1801, as published in the binomen *Cancer cymodoce* (senior subjective synonym of the specific name of *Trapezia dentifrons* Latreille, 1828, the type species of *Trapezia* Latreille, 1828), is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *Trapecia* Berthold, 1827, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 2542/2

An application for the conservation of *Trapezia* Latreille, 1828 was submitted by Miss R.A. Cooper (*formerly of the Secretariat, I.C.Z.N.*) following the discovery that Case 2542 (see BZN **44**: 95–96), which proposed to eliminate the homonymy between TRAPEZIIDAE in decapods and bivalves, could not otherwise be completed. The case was published in BZN **46**: 104–105 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 105. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Schuster was on leave of absence.

See also Opinion 1615, BZN **47**: 229–230 for the family-group name TRAPEZIIDAE Miers, 1886.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

cymodoce, Cancer, Herbst, 1801, *Versuch einer Naturgeschichte der Krabben und Krebse*, vol. 3, part 2, p. 22.

Trapecia Berthold, 1827, *Latreille's natürliche Familien des Thierreichs aus dem Französischen mit Anmerkungen und Zusätzen*, p. 255.

Trapezia Latreille, 1828, *Encyclopédie méthodique d'Histoire naturelle (Insectes)*, vol. 10, p. 695.

OPINION 1615

TRAPEZIIDAE Miers, 1886 (Crustacea, Decapoda) and TRAPEZIIDAE Lamy, 1920 (Mollusca, Bivalvia): homonymy removed

Ruling

(1) Under the plenary powers it is hereby ruled that the stem of the generic name *Trapezium* Megerle von Mühlfeld, 1811 for the purposes of Article 29 is *Trapez-*.

(2) The name *Trapezium* Megerle von Mühlfeld, 1811 (gender: neuter), type species by subsequent designation by Stewart (1930) *Trapezium perfectum* Megerle von Mühlfeld, 1811 (a junior subjective synonym of *Chama oblonga* Linnaeus, 1758), is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *oblonga* Linnaeus, 1758, as published in the binomen *Chama oblonga* (senior subjective synonym of the specific name of *Trapezium perfectum* Mergerle von Mühlfield, 1811, the type species of *Trapezium* Megerle von Mühlfield, 1811), is hereby placed on the Official List of Specific Names in Zoology.

(4) The following names are hereby placed on the Official List of Family-Group Names in Zoology:

(a) TRAPEZIIDAE Miers, 1886, type genus *Trapezia* Latreille, 1828 (Crustacea);

(b) TRAPEZIDAE Lamy, 1920, type genus *Trapezium* Megerle von Mühlfeld, 1811 (Mollusca), spelling emended by the ruling in (1) above.

History of Case 2542

An application to remove the homonymy between TRAPEZIIDAE Miers, 1886 (Crustacea) and TRAPEZIIDAE Lamy, 1920 (Mollusca) was received from Dr G.J. Morgan (*Western Australian Museum, Perth, Australia*) on 9 December 1985. After correspondence the case was published in BZN **44**: 95–96 (June 1987). Notice of the case was sent to appropriate journals. A supportive comment was received from Dr L.B. Holthuis, who suggested that a molluscan family name of TRAPEZIUMIDAE would avoid possible future homonymy with a family name which might be derived from the hemipteran genus *Trapezus* Distant, 1882. However, *Trapezus* was synonymised with *Cryphula* Stål, 1874 by Barber in 1918 (see Slater, J.A., 1964, *Lygaeidae of the World*, vol. 2, p. 814).

Decision of the Commission

On 1 September 1988 the members of the Commission were invited to vote on the proposals published in BZN **44**: 95–96. At the close of the voting period on 1 December 1988 the votes were as follows:

Affirmative votes — 17: Bayer, Cocks, Corliss, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Melville, Mroczkowski, Ride, Savage, Schuster, Starobogatov, Uéno, Willink

Negative votes — none.

No votes were received from Dupuis, Gruchy and Trjapitzin.

Cogger, Holthuis and Thompson were on leave of absence.

The vote was thus unanimous, but problems with both the type species and the date of the crustacean genus *Trapezia* were found after voting. Consequently no Opinion was published, and a second case was published to resolve these problems (see BZN **46**: 104–105). The Opinion 1614 relating to the second case is now published (see BZN **47**: 228), and the Opinion resulting from the 1988 vote is now completed.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

oblonga, Chama, Linnaeus, 1758, *Systema naturae*, Ed. 10, vol. 1, p. 692.

TRAPEZIDAE Lamy, 1920, *Journal de Conchyliologie*, **64**(4): 265 (as TRAPEZIIDAE).

TRAPEZIIDAE Miers, 1886, *Report of the Scientific Results of the Voyage of HMS Challenger*, (Zoology, Part 49), vol. 17, p. 163.

Trapezium Megerle von Mühlfeld, 1811, *Magazin für die neuesten Entdecklungen in der gesammten Naturkunde von Der Gesellschaft Naturforschaft Freunde zu Berlin*, **5**: 68.

OPINION 1616

Ptochus Schönherr, 1826 (Insecta, Coleoptera): *Ptochus porcellus* Boheman in Schönherr, 1834 confirmed as the type species

Ruling

(1) Under the plenary powers all fixations of type species for the nominal genus *Ptochus* Schönherr, 1826 prior to the designation of *Ptochus porcellus* Boheman in Schönherr, 1834 by Marshall (1916) are hereby set aside.

(2) The name *Ptochus* Schönherr, 1826 (gender: masculine), type species by subsequent designation by Marshall (1916) *Ptochus porcellus* Boheman in Schönherr, 1834, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *porcellus* Boheman in Schönherr, 1834, as published in the binomen *Ptochus porcellus* (specific name of the type species of *Ptochus* Schönherr, 1826), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2646

An application for the confirmation of *Ptochus porcellus* Boheman in Schönherr, 1834 as the type species of *Ptochus* Schönherr, 1826 was received from Mr R.T. Thompson (*The Natural History Museum, London, U.K.*) on 24 February 1988. After correspondence the case was published in BZN **46**: 28–29 (March 1989). Notice of the case was sent to appropriate journals. A comment in support was received from Dr Miguel A. Alonso-Zarazaga (*Museo Nacional de Ciencias Naturales, Madrid, Spain*) who noted that conservation of the accepted meaning of *Ptochus* Schönherr, 1826 would help to stabilise the generic nomenclature of weevils, which is confused at present.

It was noted on the voting paper that the genus *Ptochus* has been treated in a number of major publications and that it is the type genus of the large tribe PTOCHINI Reitter, 1912, which includes some 20 genera and 400 species.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 29. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Trjapitzin, Uéno, Willink

Negative votes — 1: Thompson

Schuster was on leave of absence.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

porcellus, *Ptochus*, Boheman in Schönherr, 1834, *Genera et species Curculionidum cum synonymia hujus familiae*, vol. 2, part 1, p. 483.

Ptochus Schönherr, 1826, *Curculionidum dispositio methodica cum generum characteribus, descriptionibus atque observationibus variis*, p. 188.

The following is the reference for the designation of *Ptochus porcellus* as the type species of *Ptochus*:

Marshall, G.A.K. 1916. *The fauna of British India, including Ceylon and Burma.* Coleoptera. Rhynchophora: Curculionidae (part 1), p. 259.

OPINION 1617

Rosema Walker, 1855 (Insecta, Lepidoptera): given precedence over *Zelica* Hübner, [1825] and *Rhogalia* Hübner, [1825]

Ruling

(1) Under the plenary powers the generic name *Rosema* Walker, 1855 is hereby given precedence over *Zelica* Hübner, [1825] and *Rhogalia* Hübner, [1825] whenever it is considered to be a synonym of either of the latter names.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

- (a) *Rosema* Walker, 1855 (gender: feminine), type species by subsequent designation by Kirby (1892) *Rosema dorsalis* Walker, 1855, with the endorsement that it is to be given precedence over *Zelica* Hübner, [1825] and *Rhogalia* Hübner, [1825] whenever it is considered to be a synonym of either of the latter names;
- (b) *Zelica* Hübner, [1825] (gender: feminine), type species by monotypy *Phalaena zelica* Stoll, [1790], with the endorsement that it is not to be given priority over *Rosema* Walker, 1855, whenever the two names are considered to be synonyms;
- (c) *Rhogalia* Hübner, [1825] (gender: feminine), type species by monotypy *Phalaena epigena* Stoll, [1790], with the endorsement that it is not to be given priority over *Rosema* Walker, 1855, whenever the two names are considered to be synonyms.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *dorsalis* Walker, 1855, as published in the binomen *Rosema dorsalis* (specific name of the type species of *Rosema* Walker, 1855);
- (b) *zelica* Stoll, [1790], as published in the binomen *Phalaena zelica* (specific name of the type species of *Zelica* Hübner, [1825]);
- (c) *epigena* Stoll, [1790], as published in the binomen *Phalaena epigena* (specific name of the type species of *Rhogalia* Hübner, [1825]).

History of Case 2665

An application for *Rosema* Walker, 1855 to be given precedence over two senior subjective synonyms was received from Dr P. Thiaucourt (*Muséum National d'Histoire Naturelle, Paris, France*) on 16 May 1988 and published in BZN **46**: 123–125 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 124. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell (in part), Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride (in part), Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Schuster was on leave of absence.

Ride and Heppell would have preferred outright suppression of *Zelica* and *Rhogalia*. Heppell commented: 'No reason is given why *Rosema* should not be conserved simply by the suppression of *Zelica* and *Rhogalia*. Indeed, from the evidence presented this would seem by far the best solution. There are no complications at either family or species level, and there has been no usage of the senior generic names this century. Let us leave the always complicating procedure of conditional precedence only for those few cases where there is real doubt about the consequences of suppressing a senior subjective synonym'.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

dorsalis, Rosema, Walker, 1855, *List of the specimens of lepidopterous insects in the collection of the British Museum*, part 4, p. 1168.
epigena, Phalaena, Stoll, [1790], *Aanhangsel van het Werk, de Uitlandsche Kapellen, voorkomende in de drie Waereld-Deelen Asia, Africa en America, door den Heere Pieter Cramer*, p. 72.
Rhogalia Hübner, [1825], *Verzeichniss bekannter Schmetterlinge*, p. 396.
Rosema Walker, 1855, *List of the specimens of lepidopterous insects in the collection of the British Museum*, part 4, p. 1159.
zelica, Phalaena, Stoll, [1790], *Aanhangsel van het Werk, de Uitlandsche Kapellen, voorkomende in de drie Waereld-Deelen Asia, Africa en America, door den Heere Pieter Cramer*, p. 73.
Zelica Hübner, [1825], *Verzeichniss bekannter Schmetterlinge*, p. 396.

The following is the reference for the designation of *Rosema dorsalis* as the type species of *Rosema*:

Kirby, W.F. 1892. *A synonymic catalogue of Lepidoptera Heterocera (Moths)*, vol. 1 (Sphinges and Bombyces), p. 581.

OPINION 1618

Protocalliphora Hough, 1899 (Insecta, Diptera) and its type species *Musca azurea* Fallén, 1817: usage conserved by the designation of a replacement lectotype

Ruling

(1) Under the plenary powers all designations of lectotype for *Musca azurea* Fallén, 1817 prior to that by Sabrosky (1956) are hereby set aside.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:

(a) *Protocalliphora* Hough, 1899 (gender: feminine), type species by original designation *Musca azurea* Fallén, 1817;

(b) *Protophormia* Townsend, 1908 (gender: feminine), type species by monotypy *Phormia terraenovae* Robineau-Desvoidy, 1830.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:

(a) *azurea* Fallén, 1817, as published in the binomen *Musca azurea* (specific name of the type species of *Protocalliphora* Hough, 1899) and as defined by the lectotype designated by Sabrosky (1956);

(b) *terraenovae* Robineau-Desvoidy, 1830, as published in the binomen *Phormia terraenovae* (specific name of the type species of *Protophormia* Townsend, 1908).

History of Case 2658

An application for the conservation of usage of *Protocalliphora* Hough, 1899 and its type species *Musca azurea* Fallén, 1817 by the designation of a replacement lectotype was received from Dr C.W. Sabrosky (*Systematic Entomology Laboratory, U.S. Department of Agriculture, Washington, D.C., U.S.A.*) on 26 April 1988. After correspondence the case was published in BZN **46**: 126–129 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 129. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Schuster was on leave of absence.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

azurea, Musca, Fallén, 1817, *Kongliga Vetenskaps Akademiens Handlingar*, **1816**: 245.

Protocalliphora Hough, 1899, *Entomological News*, **10**: 65.
Protophormia Townsend, 1908, *Smithsonian Miscellaneous Collections*, no. 1803, **51**(2): 123.
terraenovae, Phormia, Robineau-Desvoidy, 1830, *Mémoires présentés par divers savans à l'Académie Royale des Sciences de l'Institut de France*, **2**: 467.

The following is the reference for the designation of the lectotype of *Musca azurea* Fallén, 1817:

Sabrosky, C.W. 1956. *Proceedings of the Royal Entomological Society of London*, (B)**25**(9–10): 178.

OPINION 1619

Euribia jaceana Hering, 1935 (currently *Urophora jaceana*; Insecta, Diptera): specific name given precedence over *Euribia conyzae* Hering, 1933

Ruling

(1) Under the plenary powers the specific name *jaceana* Hering, 1935, as published in the binomen *Euribia jaceana*, is hereby given precedence over the specific name *conyzae* Hering, 1933, as published in the binomen *Euribia conyzae*, whenever the two names are considered to be synonyms.

(2) The following names are hereby placed on the Official List of Specific Names in Zoology:

- (a) *jaceana* Hering, 1935, as published in the binomen *Euribia jaceana*, with the endorsement that it is to be given precedence over the specific name *conyzae* Hering, 1933, as published in the binomen *Euribia conyzae*, whenever the two names are considered to be synonyms;
- (b) *conyzae* Hering, 1933, as published in the binomen *Euribia conyzae*, with the endorsement that it is not to be given priority over the specific name *jaceana* Hering, 1935, as published in the binomen *Euribia jaceana*, whenever the two names are considered to be synonyms.

History of Case 2680

An application to give precedence to *Euribia jaceana* Hering, 1935 over *E. conyzae* Hering, 1933 was received from Drs I.M. White (*CAB Institute of Entomology, London, U.K.*) & P. Harris (*Agricultural Research Station, Regina, Canada*) on 6 September 1988. After correspondence the case was published in BZN **46**: 30–32 (March 1989). Notice of the case was sent to appropriate journals. No comments were received.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 31. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 24: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kraus, Lehtinen, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 3: Kabata, Macpherson and Mahnert.

Schuster was on leave of absence.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

conyzae, Euribia, Hering, 1933, *Amateur de Papillons*, **6**: 309.
jaceana, Euribia, Hering, 1935, *Märkische Tierwelt*, **1**: 169.

OPINION 1620

Monograptus exiguus (Graptolithina): accepted usage conserved by citation of Lapworth (1876) as author

Ruling

(1) Under the plenary powers the subspecific name *exiguus* Nicholson, 1868, as published in the combination *Graptolites lobiferus* Var. β *exiguus*, and all other uses of that name before its publication by Lapworth (1876), are hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.

(2) The name *exiguus* Lapworth, 1876, as published in the binomen *Monograptus exiguus* and as interpreted by the lectotype designated in BZN **46**: 33, para. 6, is hereby placed on the Official List of Specific Names in Zoology.

(3) The name *exiguus* Nicholson, 1868, as published in the combination *Graptolites lobiferus* Var. β *exiguus*, and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2674

An application for the conservation of the accepted usage of *Monograptus exiguus* by the citation of Lapworth (1876) as author was received from Mr D.K. Loydell (*University College of Wales, Aberystwyth, Wales, U.K.*) on 27 July 1988. After correspondence the case was published in BZN **46**: 33–34 (March 1989). Notice of the case was sent to appropriate journals. A comment in support from Dr Margaret Sudbury (*Rickmansworth, U.K.*) was published in BZN **46**: 191–192.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 34. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 26: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 1: Holthuis

Schuster was on leave of absence.

Holthuis would have preferred a neotype selection for the nominal species *Graptolites exiguus* Nicholson, 1868, and continued attribution of *exiguus* to Nicholson.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

exiguus, Graptolites lobiferus Var. β, Nicholson, 1868, *Quarterly Journal of the Geological Society of London*, **24**: 533.

exiguus, Monograptus, Lapworth, 1876, *Geological Magazine*, (2)**3**: 503.

OPINION 1621

Osteoglossum Cuvier, 1829 (Osteichthyes, Osteoglossiformes): *Osteoglossum bicirrhosum* Cuvier, 1829 designated as the type species

Ruling

(1) Under the plenary powers:

(a) all first reviser actions regarding the specific names *vandellii* Cuvier, 1829, as published in the binomen *Osteoglossum vandellii*, and *bicirrhosum* Cuvier, 1829, as published in combination with the manuscript generic name *Ischnosoma*, are hereby set aside, and it is ruled that *bicirrhosum* Cuvier, 1829 is to be deemed a senior objective synonym of *vandellii* Cuvier, 1829;

(b) *Osteoglossum bicirrhosum* Cuvier, 1829 is hereby designated as the type species of the nominal genus *Osteoglossum* Cuvier, 1829.

(2) The name *Osteoglossum* Cuvier, 1829 (gender: neuter), type species by designation under the plenary powers in (1)(b) above, *Osteoglossum bicirrhosum* Cuvier, 1829, is hereby placed on the Official List of Generic Names in Zoology.

(3) The name *bicirrhosum* Cuvier, 1829, as published in the binomen '*Ischnosoma*' *bicirrhosum* (specific name of the type species of *Osteoglossum* Cuvier, 1829) is hereby placed on the Official List of Specific Names in Zoology.

(4) The name *vandellii* Cuvier, 1829, as published in the binomen *Osteoglossum vandellii*, and as ruled in (1)(a) above to be a junior objective synonym of *bicirrhosum* Cuvier, 1829, as published in the binomen '*Ischnosoma*' *bicirrhosum*, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 2659

An application for the fixation of *Osteoglossum bicirrhosum* Cuvier, 1829 as the type species of *Osteoglossum* Cuvier, 1829 was received from Dr M. Kottelat (*Zoologische Staatssammlung, München, Fed. Rep. Germany*) on 28 April 1988. After correspondence the case was published in BZN **46**: 130–131 (June 1989). Notice of the case was sent to appropriate journals. No comments were received.

With regard to Proposal (1)(a) of BZN **46**: 130, para. 4: a simpler course in this case would have been to suppress the unused specific name *vandellii* Cuvier, 1829 (except for the purposes of homonymy). The author of the application would not accept this suggestion. Both specific names *vandellii* and *bicirrhosum* are available as from Cuvier, 1829 (the latter under Article 11e of the Code), and are thus objective synonyms (i.e. two names for the same taxon). The first reviser action of Agassiz (1831; see para. 2) gave precedence to *vandellii*, but this was never followed and the application sought to follow universal usage by setting aside the action of Agassiz.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 130–131. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 21: Bayer, Bock, Cocks, Cogger, Corliss, Hahn, Halvorsen, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — 4: Holthuis, Kabata, Ride and Savage.

Schuster was on leave of absence.

Dupuis abstained because, although he supported the aims of the proposals, he considered that the authorship of the name *bicirrhosum* should be 'Spix in Cuvier, 1829' and not simply 'Cuvier, 1829' [however, Article 50g of the Code specifies the latter citation]. Heppell, Holthuis, Ride and Savage said (in agreement with a comment by the Executive Secretary on the voting papers) that the name *vandellii* should have been suppressed for purposes of priority. Partly for this reason, and partly because since Cuvier (1829) had published two binomina the Commission could not 'confirm *O. bicirrhosum* as the type species of *Osteoglossum* by monotypy' (proposal (1)(b) on BZN **46**: 130), Heppell abstained and Holthuis, Ride and Savage voted against. From an entirely formal point of view two new nominal species were established in Cuvier's paper, even though both specific names referred to the same taxon (i.e. they are objective synonyms). The Commission's vote adopted *O. bicirrhosum* as the type species of *Osteoglossum* and the Ruling records this decision.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

bicirrhosum, Ischnosoma, Cuvier, 1829, *Le règne animal distribué d'après son organisation pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée*, Ed. 2, vol. 2, p. 328.

Osteoglossum Cuvier, 1829, *Le règne animal distribué d'après son organisation pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée*, Ed. 2, vol. 2, p. 328.

vandellii, Osteoglossum, Cuvier, 1829, *Le règne animal distribué d'après son organisation pour servir de base à l'histoire naturelle des animaux et d'introduction à l'anatomie comparée*, Ed. 2, vol. 2, p. 328.

Rulings of the Commission

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INSTRUCTIONS TO AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Recent parts of the *Bulletin* should be consulted as examples.

Title. This should be written in lower case letters and include the names to be conserved. A specific name should be cited in the original binomen, with the current name in parentheses.

Author's name. Full postal address should be given.

Abstract. This will be prepared by the Commission's Secretariat.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals. Text references should give dates and page numbers in parentheses, e.g. 'Daudin (1800, p. 39) described . . . '.

References. These should be given for all authors cited. The title of periodicals should be in full and be underlined; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be underlined and followed by the number of pages, the publisher and the place of publication.

Submission of application. Two copies should be sent to: The Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time that it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in ASCII text on IBM PC format 5.25 inch 360KB (preferable) or 1.2MB, or 3.5 inch 1.4MB floppy disk. Disks will be returned after copying. It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references.

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THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

The *Bulletin* is published four times a year for the International Commission on Zoological Nomenclature by the International Trust for Zoological Nomenclature, a charity (no. 211944) registered in England. The annual subscription for 1990 is £65 or $125, postage included; the rates for 1991 will be £70 or $135. All manuscripts, letters and orders should be sent to:

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 47, part 4 (pp. 241–311) 20 December 1990

Notices

(a) *Invitation to comment.* The Commission is authorised to vote on applications published in the *Bulletin of Zoological Nomenclature* six months after the publication, but this period is normally extended to enable comments to be submitted. Any zoologist who wishes to comment on any of the applications is invited to send his contribution to the Executive Secretary of the Commission as quickly as possible.

(b) *Invitation to contribute general articles.* At present the *Bulletin* comprises mainly applications concerning names of particular animals or groups of animals, resulting comments and the Commission's eventual rulings (Opinions). Proposed amendments to the Code are also published for discussion.

Articles or notes of a more general nature are actively welcomed provided that they raise nomenclatural issues, although they may well deal with taxonomic matters for illustrative purposes. It should be the aim of such contributions to interest an audience wider than some small group of specialists.

(c) *Receipt of new applications.* The following new applications have been received since going to press for volume 47, part 3 (published on 28 September 1990). Under Article 80 of the Code, existing usage is to be maintained until the ruling of the Commission is published.

(1) *Carabus mollis* Marsham, 1802 (currently *Calathus mollis*; Insecta, Coleoptera): proposed conservation of the specific name. (Case 2782). B. Aukema & M.L. Luff.

(2) *Cryptophagus* Herbst, 1792, *Dorcatoma* Herbst, 1792, *Rhizophagus* Herbst, 1793 and *Colon* Herbst, 1797 (Insecta, Coleoptera): proposed conservation as the correct spellings, and proposed conservation of *Lyctus bipustulatus* Fabricius, 1792 as the type species of *Rhizophagus*. (Case 2783). H. Silfverberg.

(3) *Procellaria gigantea* Gmelin, 1789 (currently *Macronectes giganteus*; Aves, Procellariiformes): proposed conservation of usage of the specific name by designation of a neotype. (Case 2784). J.-F. Voison & 16 others.

(4) *Palaeopropithecus ingens* Grandidier, 1899 (Mammalia, Primates): proposed conservation of both generic and specific names. (Case 2785). I. Tattersall & E.L. Simons.

(5) TACHINIDAE Fleming, 1821 (Insecta, Coleoptera) and TACHINIDAE Robineau-Desvoidy, 1830 (Insecta, Diptera): proposed removal of homonymy, and TACHYPORIDAE MacLeay, 1825: proposed precedence over TACHINIDAE Fleming, 1821. (Case 2786). A.F. Newton Jr., M.K. Thayer & C.W. Sabrosky.

(6) *Styloptcuma* Bacescu & Muradian, 1974 (Crustacea, Cumacea): proposed conservation with designation of *S. antipai* Bacescu & Muradian, 1974 as the type species. (Case 2787). L.B. Holthuis.

(7) *Mopsea* Lamouroux, 1816 (Cnidaria, Octocorallia): proposed designation of *Isis encrinula* Lamarck, 1815 as the type species. (Case 2788). P. Alderslade.

(8) *Amicytheridea* Bate, 1975 (Crustacea, Ostracoda): proposed designation of *A. triangulata* Bate, 1975 as the type species. (Case 2789). S.C. Khosla, S.R. Jakhar & M.H. Mohammed.

Bulletin of Zoological Nomenclature — Crustacea and Mollusca Offprints

As an experiment to assess the demand, the International Trust for Zoological Nomenclature is introducing a subscription for individual zoologists wishing to receive offprints of all cases in particular disciplines. For an annual payment of £15 or $25 subscribers will receive copies of all Applications, Comments and Opinions relating to either the Crustacea or Mollusca as soon as they are published in the *Bulletin of Zoological Nomenclature*. This service will start with the present volume, but offprints are available back to 1980.

Orders for offprints relating to either the Crustacea or the Mollusca should be sent to I.T.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K., with payment at the rate of £15 or $25 for each year requested.

The International Code of Zoological Nomenclature

The Third Edition (published 1985) supersedes all earlier versions and incorporates many changes.

Copies may be ordered from The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £19 or $35 (postage included) or from the American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington, D.C. 20560 U.S.A. Price $35 ($32 to members of A.A.Z.N.). Payment should accompany orders.

Official Lists and Indexes of Names and Works in Zoology — Supplement

The Official Lists and Indexes of Names and Works in Zoology was published in 1987. This book gives details of all the names and works on which the Commission has ruled since it was set up in 1895 up to 1985. There are about 9,900 entries.

In the three years 1986–88, 544 names and three works have been added to the Official Lists and Official Indexes. A supplement has been prepared giving these additional entries, together with some amendments to entries in the 1987 volume. This supplement was circulated with Vol. 46, Part 1 of the *Bulletin of Zoological Nomenclature*. Copies can be obtained without charge from either of the following addresses, from which the *Official Lists and Indexes* can be ordered at the price shown (postage included).

Payment should accompany orders.

The International Trust for Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. Price £60 or $110

or

The American Association for Zoological Nomenclature, c/o NHB Stop 163, National Museum of Natural History, Washington D.C. 20560, U.S.A. Price $110 ($100 to members of A.A.Z.N.).

International Trust for Zoological Nomenclature

Financial Report for 1989

The Trust made a small operating loss of £353 during the year 1989, which is 0.6% of the total income of £60,930 received during that year. It demonstrates the extent to which the Trust relies on the continuation of its generous grants and donations.

Approximately half the Trust's income came from sales of publications. Foremost amongst these were the four parts of the 1989 volume of the *Bulletin of Zoological Nomenclature*, which yielded an income of £20,400. Sales of the *Official Lists and Indexes* amounted to £5,907 in 1989, bringing the total sales since publication in June 1987 to £24,031 by the end of 1989; the profit on that publication is now £8,084, after the printing costs have been deducted. Sales of the *International Code of Zoological Nomenclature* recovered to £2,614 in 1989, after the abnormally low figure of less than half that amount in 1988, and this reflects the steps taken by the Trust to sell the *Code* direct rather than through an agent.

The remaining half of the Trust's income was from grants, donations and interest. Grants of £1,000 from the Royal Society and £2,000 each from the U.K. Agricultural and Food Research Council, the Medical Research Council, the Natural Environment Research Council and the Science and Engineering Research Council were received with thanks. The Trust also wishes to express its thanks to the donors listed at the end of this report who supported its work during the year. Income from deeds of covenant amounted to £213, and bank and investment interest came to £10,213. Finally royalties from sales of the *Code* translated into other languages yielded £694. All the sources of income showed an increase over the amounts received in 1988, except for the *Official Lists and Indexes*, which decreased from the high level of sales during the first 18 months after publication.

The expenses of the Trust in 1989 amounted to £61,238. The largest amount was for the salaries and national insurance (£48,981) and office expenses (£2,780) of the Secretariat of the International Commission on Zoological Nomenclature. Printing and distribution of the *Bulletin* amounted to £8,982. Minor expenses of £290 for depreciation of office equipment and £250 for the audit fee brought the total expenses up to £61,283. The Commission was again housed in the Natural History Museum and we thank the Trustees and Director for their continuing support.

M.K. HOWARTH
Secretary and Managing Director
5 June 1990

Donations received included the following:

Academia Sinica, Taiwan, £118
Academy of Science, U.S.S.R., £507
American Association for Zoological Nomenclature, £5,825
Australian Museums, £142
British Ecological Society, £500
Dr D.G. Broadley, Zimbabwe, £100
Freshwater Biological Association, £5
Dr K. Hulsemann, £30
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Swiss Academy of Science, £1,990
Unione Zoologica Italiana, £212
Total £10,050

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 1989

Income		
SALE OF PUBLICATIONS		
Bulletin of Zoological Nomenclature	21,396	
International Code of Zoological Nomenclature	2,641	
Official Lists and Indexes	5,907	
		29,944
GRANTS	9,000	
DONATIONS AND COVENANTS	11,079	
ROYALTIES	694	
BANK AND INVESTMENT INTEREST	10,213	
		30,986
		60,930
Expenditure		
SALARIES AND FEES	48,981	
OFFICE EXPENSES	2,780	
AUDIT FEE	250	
PRINTING AND DISTRIBUTION OF PUBLICATIONS	8,982	
DEPRECIATION OF OFFICE EQUIPMENT	290	
		61,283
Deficit for the year		£353

International Commission on Zoological Nomenclature

General Session of the Commission, University of Maryland, 4 July 1990

Present: Prof Dr O. Kraus (President) in the Chair: Commissioners Bock, Cogger, Corliss, Heppell, Lehtinen, Minelli, Ride, Savage, Schuster and Thompson. Dr Tubbs (Executive Secretary), Mrs Gentry and Mr Smith from the Secretariat also present. The President welcomed Dr Bock and Prof Minelli as new members of the Commission attending their first meeting.

1. Apologies for absence were received from Commissioners Bayer, Cocks, Dupuis, Hahn, Halvorsen, Holthuis, Kabata, Macpherson, Mahnert, Martins de Souza, Mroczkowski, Nielsen, Nye, Starobogatov, Trjapitzin, Uéno and Willink.

2. The minutes of the previous General Session of the Commission (Canberra, October 1988) as published in BZN **46**: 7–12 were accepted and signed. The report of the Section of Zoological Nomenclature (Canberra, October 1988) as published in BZN **46**: 14–18 was discussed.

3. *Specialist Nomenclature Committees*

A number of Specialist Nomenclature Committees established by relevant Congresses now existed and were available to assist the Commission by advising on applications submitted to the Commission and the impact of such applications on taxonomy. However, there were some areas where there was a fear that the existence of such a committee would impinge on the freedom of taxonomists. It was stressed that Nomenclature Committees would need to be recognized as being committees of the Commission. If their role was to be widened to areas such as compiling and considering registers of names, it was important to spell out clearly the role of the committees. In this context, Prof Bock agreed to draw up draft Terms of Reference for Nomenclature Committees based on his experience of the Standing Committee on Ornithological Nomenclature (SCON) of the International Ornithological Congress. The importance of proceeding with the establishment of Specialist Nomenclature Committees in appropriate areas that did not yet have them was agreed.

4. *Bulletin of Zoological Nomenclature*

Dr Tubbs reported that in 1989 there were 327 subscribers to the *Bulletin* from 45 countries. As an experiment to assess the demand, the International Trust for Zoological Nomenclature was introducing a subscription for individual zoologists wishing to receive offprints of all cases in particular areas. Initially this would cover the Crustacea and the Mollusca.

5. *Official Lists and Indexes of Names and Works in Zoology*

In the three years since publication 481 copies of this book had been sold and a further 51 copies had been distributed free to Commissioners, reviewers, etc. A supplement listing all the additional entries in the five years since compilation of the book would be issued early in 1991. It was suggested that there would be advantage in providing the updated book for sale on disk in addition to book form. It was agreed that production on disk would be explored with Biosis for report to the next meeting at Amsterdam.

6. *Financial Position*

Dr Tubbs said that the Trust's expenditure in 1990 would be about matched by income. Expenditure would be lower than anticipated due to a temporary saving in salary arising from the resignation of a member of the Secretariat and to economies in printing costs by providing copy on disk. Income was higher than expected mainly due to an increased contribution from the American Association for Zoological Nomenclature and donations from a number of countries that had not recently provided support, particularly Australia, Germany, South Africa, Spain and Japan. The Commission expressed warm appreciation to those institutions and individuals that had made contributions enabling the Commission's work to continue and progress, and also to those whose efforts had led to such contributions being made.

It had recently been suggested that a European Association for Zoological Nomenclature should be established with the objective of furthering the interests of the Commission's work and of co-ordinating financial support for the Trust. Fifteen European countries had Commissioners or Trustees who would be well placed to co-ordinate activities within their own countries. Dr Macpherson had offered to provide overall co-ordination from Spain. Commissioners welcomed the proposition and RESOLVED to work towards the establishment of such an Association. It was suggested that a first step forward would be for Dr Macpherson to write to representatives in each European country requesting a list of institutions and individuals who might be approached for support.

It was known that some countries were unable to contribute research council or other government support to an organisation based abroad, such as the Trust. However, it might be possible for such countries to make additional contibutions to I.U.B.S. earmarked for the Trust. Such contributions from government sources would be additional to funds generated by the European Association for Zoological Nomenclature, or otherwise given. Dr Ride undertook to place this proposition before the next I.U.B.S. Officers Meeting.

7. *Commission Procedures*

Commissioners were aware that there was a widespread belief that the procedures followed by the Commission were too slow and cumbersome and that there was a large backlog of cases awaiting publication or decision. It was important to correct this conception and to ensure that cases could be dealt with expeditiously. The Secretary was asked to provide details so that Commissioners could respond to criticisms made to them. It was furthermore RESOLVED that the Secretariat would prepare an article explaining procedures and how these were implemented in practice. This article could be published in the *Bulletin* and also perhaps in *Systematic Zoology*.

8. *Election of Commissioners at the next I.U.B.S. Assembly*

There would be five vacancies on the Commission to be filled at the meeting of I.U.B.S. to be held at Amsterdam in September 1991; one of these vacancies already existed, but it was agreed not to fill it by the casual vacancy procedure. Calls for nominations had been widely published and nominations had been received from several countries.

9. *Proposed Suppression for Nomenclatural Purposes of three Herpetological Works*

An application for the suppression of three herpetological works by R.W. Wells and C.R. Wellington had been published in the *Bulletin* (June 1987) and a number of comments had been received and published. Commissioners agreed that, while the taxonomic content of works lay outside its area of involvement, the Commission did have a responsibility to prevent loss of universality in the use of names and it was on this issue that action might be appropriate. Before a vote was taken on the application it would be desirable to receive from the Nomenclature Committee of the International Herpetological Congress a statement, quantified as far as possible, on the loss of universality in the use of names arising from these publications. It was agreed that the Committee should be asked to supply such a statement.

It was pointed out that this case highlighted the difficulties that could arise from the publication of large numbers of destabilising names or nomenclatural acts, and that this problem had been exacerbated by modern publishing techniques. A long-term solution was desirable, and it was suggested that one way would be to compile a list of sources, both journals and book publishers, in which names would have to be published or be registered in order to be accepted as available.

10. *Register of Names*

(a) *Generic Names*

Dr Ride and Dr Tubbs reported on continuing discussions between I.U.B.S., the Commission Secretariat and Biosis on possible liaison in preparing registers of names. Commissioners recognized the value of such lists and welcomed the proposed collaboration with Biosis. A register of generic names could be based on Neave's *Nomenclator Zoologicus* and *Zoological Record.* It would be necessary to provide for breakdown into systematic groups, enabling specialists to identify errors. After appropriate periods for consultation and amendments it could be ruled that only the names on the lists should be accepted as available, with authors and dates as given therein. Other names published before the compilation date of the register would be deemed unavailable. It was important that the data bases should be prepared so that they could be searched in a variety of ways, using fields such as name, author, date, place of publication and systematic group, and that matters such as *nomina nuda*, junior homonyms, type species and actions by the Commission (such as placement on the Official Lists) could be taken into account. A committee (the President, Commissioners Cogger, Ride and Thompson and the Executive Secretary) was set up to give guidance on such lists, and to respond to difficulties that would doubtless arise. It was RESOLVED to enter into negotiations with Biosis with a view to developing a data base of generic names as a list of available names. A paper would be prepared for discussion by the Commission and the Section of Zoological Nomenclature at Amsterdam putting forward a formal proposition along these lines.

(b) *Family-Group Names*

Dr Bock described the list of about 1250 available family-group names of living birds prepared under his Chairmanship by the Standing Committee on Ornithological Nomenclature. After a number of remaining problems had been resolved it might be possible for the Commission to adopt such a list as a base-line so that other previously existing names were deemed not to exist as available names. Workers in other areas could be encouraged to prepare lists of family-group names in their own areas. With this in mind Dr Bock agreed to prepare a note setting out the procedures he had developed for drawing up such a list.

(c) *Names of Higher Taxa*

Although taxa higher than family-group were outside the remit of the Commission it was thought desirable to try to introduce some degree of conformity in the use of such higher taxa. It was suggested that a list, perhaps based on *Synopsis and Classification of Living Organisms* (McGraw-Hill, 1982) which covered extant taxa, should be drawn up for circulation to Commissioners for comment. Commissioners Heppell, Savage and the Executive Secretary would compile this for consideration at the next Commission meeting.

(d) *Specific Names*

It was suggested that the Commission could receive lists of available species-group names in discrete groups of animals, and that, after appropriate consideration by specialists in the groups concerned, such names could be ruled to be the only ones available. It was agreed that this would be discussed by the Commission and the Section of Zoological Nomenclature in Amsterdam.

11. *New Edition of the Code*

At the last Commission meeting at Canberra an Editorial Committee (Chairman: Commissioner Thompson) had been set up to work towards a new edition of the Code. Dr Thompson made a report and explained that there would be an open meeting of the Commission on 5th July to consider possible amendments to the Code. Additionally, an ICSEB Round Table Discussion on 6th July would have a more general discussion on issues of biological nomenclature involving the Botanical, Zoological and other Codes.

There was general agreement that a new edition should not follow the numbering of Articles in the 3rd Edition since a number of closely related issues were dispersed throughout the Code and needed to be brought together.

A small group of Commissioners met after the formal conclusion of the Commission meeting to identify issues for further consideration at the Commission's Open Meeting on 5th July.

12. *Conclusion*

In closing the meeting, the President expressed the view that the meeting had made significant progress and that it was important to emphasise to the zoological community the positive approach adopted by the Commission. He reminded Commissioners that the centenary of the Commission's establishment would occur in 1995 and that recognition of this, perhaps in the form of a Centenary History, would be appropriate.

International Commission on Zoological Nomenclature

Open Meeting of the Commission, University of Maryland, 5 July 1990

Present: Prof Dr O. Kraus (President) in the Chair: Commissioners Bock, Cogger, Corliss, Heppell, Lehtinen, Ride, Savage, Schuster and Thompson. Commission Secretariat: Dr Tubbs (Executive Secretary), Mrs Gentry and Mr Smith. Dr R. Bieler, Dr D. Goujet, Miss C. Hine, Dr J.H. Kirkbride, Dr M. Kraus, Miss J. McIntosh, Dr P. Mikkelsen, Dr J. Reveal, Dr G. Rosenberg, Professor J.R.P. Ross and Dr C.W. Sabrosky.

1. The President opened the meeting by welcoming all present. He explained that the aim of the meeting was to explain the Commission's policy and the way in which it operated, and to seek the views of zoologists present. The Commission was now working towards a fourth edition of the Code. A draft would be prepared for consideration by the Section of Zoological Nomenclature and for comment by zoologists, and an input from the user community at this stage would be of great value.

2. The President summarised the deliberations of the Commission in session on 4 July, referring particularly to (a) the intention to develop a register of names in use, starting with generic names, (b) discussions that had taken place on the value of a list of names of taxa at ranks higher than family-group, and (c) the continued use of publication as a primary criterion of availability. These issues are spelled out in the Minutes of the General Session of the Commission. The President believed that the Commission had achieved a measure of stability in zoological nomenclature, but he stressed that additional funding was essential to enable new activities to be implemented.

3. Dr Reveal, speaking as Co-President of ICSEB IV, welcomed the Commission's acceptance of ICSEB as a forum for meetings with the zoological community, since it was more representative of working taxonomists than meetings of the General Assembly of IUBS. He recognised that, for constitutional reasons, the Commission operated through IUBS.

4. Dr Tubbs outlined the role of the Commission's Secretariat based at the Natural History Museum, London. He described the procedure whereby applications received from zoologists were prepared for publication in the *Bulletin of Zoological Nomenclature*, voted upon by the Commission and the outcome published in an Opinion. Additionally, the Secretariat fulfilled an important advisory function.

5. The remainder of the meeting was devoted to a discussion on major policy issues at present under consideration for the next edition of the Code. At the President's invitation, Dr Ride (former President of the Commission and Chairman of the Editorial Committee for the 3rd Edition of the Code) guided the meeting. He explained that comments received on the present edition, and proposals that had been made for emendations, fell into six main areas requiring decisions on policy. These areas were Availability, Priority, Language, Homonymy, Orthography and Types. Each area was then considered in turn.

6. *Availability*

(a) *Publication (Article 8)* Modern publishing techniques had exacerbated the difficulties that could arise when publication *per se* resulted in destabilising names or nomenclatural acts automatically entering zoological nomenclature. The scale of such work could now be so great that a review of policy was warranted. One possible solution would be to develop a system whereby names made available under the existing criteria would then need to be registered in a single journal, as in bacterial nomenclature. Another solution could be to restrict publication of new names to a designated list of journals and book publishers with approved standards of refereeing and peer review; such works would have to be registered for nomenclatural purposes. There was overwhelming support for the need to extend the present criteria for availability by some form of registration. The Commission was asked to explore options. A majority favoured registration of works in preference to a register of new names. The meeting also considered whether it would be desirable to require, henceforth, all formal descriptions purporting to define nominal taxa to be in one of the languages of the Code, such languages to be decided. The proposal was supported.

(b) *Designation of Types and Descriptions (Article 13)* There was strong support for a requirement that the establishment of a species-group name must in future require the explicit designation of type specimen(s). Such holotypes or syntypes should be labelled and deposited in a publicly accessible collection, as is now the case for neotypes, unless there were circumstances when this requirement could not be met, e.g. for specimens that for physical or legal reasons could not be preserved. A majority also favoured retention of the requirement that a new family-group name should be accompanied by a description of the taxon to which it applied rather than be made available merely by being a new name based upon the name of an included genus.

7. *Priority (Article 23b)*

(a) *Species-Group Names* This Article placed on a worker wishing to secure current general usage of a junior name the onus to apply to the Commission for its conservation despite the fact that the introduction of forgotten and destabilizing names is contrary to the Principle of Priority as stated in the Code. It would be advantageous to require a worker wishing to introduce a forgotten senior synonym replacing a junior synonym in current use to justify that action. The meeting accepted unanimously that the requirement to apply to the Commission for the conservation of a junior synonym in use should be removed from Article 23 and that the different components relevant to the conservation of such names currently in Articles 23, 79 and 80 be brought together in the Code.

(b) *Family-Group Names* The application of the Principle of Priority to family-group names was proving to be destabilizing and laborious. It raised problems that could best be dealt with by the development of registers of family-group names that would be conserved against earlier names. It was agreed that the Commission should develop this option.

8. *Language (Article 11)*

(a) *Family-Group Names* The Code's insistence on classical grammar created problems in the formation of the stem of family-group names. The meeting agreed unanimously that, while the stem of family-group names should be based on classical grammar, the Code should permit departure when established usage would be upset by emendation. There was no support for disturbing current usage either by reverting to original orthography or by applying strict rules of classical grammar. It was agreed that the Code should contain its own rules of orthography that would make grammatical arguments redundant.

(b) *Agreement of Gender* The meeting explored the concept of abandoning the requirements of Latin grammar in the agreement of an adjectival specific name with the gender of the genus with which it was combined. This could be achieved by considering either that all genera were of one gender, or that the original spelling of the specific name would be preserved on recombination. The meeting was evenly divided between those favouring and those against abandoning agreement in gender. If gender agreement was abandoned, a decision would have to be made whether adjectival specific names would be spelled (a) as in most common current usage, (b) as originally published, or (c) as converted to a single gender form. The meeting did not have a consensus view on the alternatives.

9. *Homonymy (Article 55)* In many instances homonymy in family-group names is caused by the similarity (but not identity) of the names of their type genera. It had been suggested that such homonymy could be permitted when confusion was unlikely to be caused. However, the view of the meeting was strongly that increased use of data bases made it more important than hitherto to avoid homonymy in family-group names, even when occurring in widely different animal groups.

10. *Orthography*

(a) *Use of the Termination -i or -ii (and Gender Equivalents) in Specific Names (Article 31a)* The Code requires use of the original termination of specific names formed as nouns in the genitive case from personal names unless the name was otherwise incorrectly formed; this requirement to maintain original orthography was widely held to be unnecessarily pedantic. There was no support in the meeting for maintaining the requirement as it stood; a few members would prefer to require the use of a single '*-i*' termination for all names formed from those of male persons (e.g. *smithi*, *salvadorii*), but a considerable majority favoured treating *-i* and *-ii* as being permissible alternatives with users having freedom of choice between them.

(b) *Spellings Selected by the First Reviser (Article 24)* The Principle of the First Reviser sometimes generated problems, as, for example, when a first reviser action had been overlooked. One possibility would be to apply page or line priority to the use of simultaneously published names, but such an option received no support from members who preferred to maintain the Code as it stood. It was suggested that it might be advantageous for this Article to be amplified so that, when an author of simultaneously published names later considered synonyms subsequently used only one of those names, that author would be accepted as first reviser, unless another author had already made a choice between them and had thereby become the first reviser.

11. *Types*

(a) *Type Specimens* The meeting reiterated the view (para. 6b above) that type specimens must be designated and, as the property of science, be publicly accessible.

(b) *Invalidity of Type Genera (Articles 39, 40)* At present when the name of a type genus is found to be invalid as a junior homonym the family-group name must be replaced by the next oldest synonym. There was unanimous agreement that the taxonomic usage should be maintained by requiring it to be replaced by the name based on the valid name of the type genus. It was also agreed unanimously that continuity of a family-group name in general usage should be maintained as in the current Code, even if based on a type genus itself rejected as a junior synonym.

(c) *Misidentification of Type Genera and Species (Articles 41, 65, 70)* Articles 41 and 65 of the Code required that, if stability and continuity in the meaning of a family-group name were threatened by the discovery that its type genus was based on a misidentified type species, or by the discovery of an overlooked type fixation, the case was to be referred to the Commission for a ruling. Similarly, Article 70 requires that cases of misidentified type species of genera must be referred to the Commission. The need to involve the Commission in all such cases was questioned. If the current provision was to be replaced by an automatic provision, options would be to accept the nominal type genus or species as cited, even though considered to be misidentified, or to adopt as type the nominal taxon considered to have been actually involved. No consensus was reached and the Commission was asked to give the matter further consideration.

(d) *Action by the Commission to Set Aside Type Specimens to Clarify Nomina Dubia (Recommendation 75E)* The present position was that the Commission was required to use its plenary powers to suppress the type status of an existing type specimen and to designate a neotype when this was needed to clarify a nomen dubium. It was agreed that there could be advantage if the Commission's involvement in such cases did not need recourse to the plenary powers.

12. *Restructuring the Code*

The 3rd Edition of the Code had maintained the arrangement of earlier editions. It was agreed that, in the next edition of the Code, there was a need to bring together subjects that in the present edition were widely separated, for example in the case of protecting names in use against unused senior synonyms Articles 23b, 79c and 80c could be unified (see 7a above).

13. *Thanks to Participants*

In closing the meeting the President expressed his thanks to Dr Ride who had guided the discussion on major policy issues relating to the next edition of the Code and to all those present who had helped in the development of these policies. He said that the views of the meeting were of great help to the Commission and would be considered further in the process of developing a 4th Edition of the Code.

Case 2768

Lepidomenia Kowalevsky in Brock, 1883 (Mollusca, Solenogastres): proposed designation of *Lepidomenia hystrix* Marion & Kowalevsky in Fischer, 1885 as the type species

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Abstract. The purpose of this application is to establish the correct authorship and dates for the solenogaster names *Lepidomenia* and *L. hystrix*, and to designate *L. hystrix* as the type species of the genus in accordance with universal understanding and usage.

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1. Both the generic and specific names of the binomen *Lepidomenia hystrix* were proposed in ways which have continued to cause confusion as to the correct attribution of date and authorship. Pilsbry (1898, p. 310) commented on 'the decidedly confused literature' and summarized the problem as follows: 'The name *Lepidomenia* was first used by Kowalevski in 1881 [sic] or 1883 in connection with *Neomenia coralliophila* and a Marseilles form supposed to be specifically the same as *coralliophila*, but apparently identical with what was subsequently described as *L. hystrix*. Simroth has chosen to restrict *Lepidomenia* to the later described species, although the record would incline one to choose *N. coralliophila* as the type.' No doubt because Kowalevsky's introduction of *Lepidomenia* was made in a literature-recording journal (1883) and not in the primary zoological literature, Pilsbry attributed the name to Kowalevsky & Marion, 1887. This attribution is still sometimes found in modern works (e.g. Jones & Baxter, 1987, p. 28). The spelling 'Kowalevsky' is adopted here, as that is the transliteration used by the author himself in non-Russian works, but he is also commonly cited as Kovalevsky, Kowalevski or Kowalewsky.

2. In 1872 Kowalevsky discovered two new species of Solenogastres associated with corals at La Calle, Algeria, which he assigned to the genus *Neomenia* Tullberg, 1875. The first of these, *N. gorgonophila*, appeared in an abstract (Kowalevsky in Brandt, 1880, p. 190), which was followed by a full description in vol. 37 of *Izvêstiya Imperatorskago Obshchestva Lyubitelei Estestvoznaniya...* (Kowalevsky, 1881a). The single specimen of the second species was described as *N. corallophila* (Kowalevsky, 1881b). The description of this species was intended for publication in an appendix to vol. 37 (1881) of *Izvêstiya*, and this was announced in vol. 41 (part 1, back cover, also published in 1881). The paper was, however, never published in that form and it is omitted from the index to *Izvêstiya* publications, 1863 to 1894 (Ivanovskii, 1894). Kowalevsky's work was, nevertheless, included in literature-recording publications (*Zoologischer Anzeiger* (1882, p. 422), *Zoologischer Jahresbericht* (1883, pp. 19, 28–29) and *Zoological Record* (1883, vol. 19, Mollusca, p. 8)) which noted it among the publications for 1882 as being published in 1881 in volume 43 of the *Izvêstiya* (or a

vernacular equivalent of the title of that periodical). Soulsby and Townsend's *Catalogue of the books... in the British Museum* (*Natural History*) (*Supplement*) (1933, p. 585) recorded that only 'author's copies' of the work were in existence. It was listed without comment as a separate publication by Kowalevsky & Marion (1887, p. 7, footnote) and in a bibliography of Kowalevsky's papers appended to his biography (Dogel', 1945, p. 150). A copy of Kowalevsky's work in the library of the Natural History Museum, London, shows no evidence that it is merely an unpublished proof; according to the plates it is a preprint of a paper intended for vol. 43 of the *Izvêstiya*. Kowalevsky's paper was presumably withdrawn from publication in the *Izvêstiya* at the last minute, and the completed text and plates issued as separates only (the entry in the *Zoologischer Jahresbericht* (1883, p. 19, no. 67) acknowledges 'Referat nach gütiger briefl. Mittheilung des Herrn Verfassers'). In the Museum copy the specific name of the solenogaster is spelled *corallophila* throughout, and it is odd, therefore, that all three literature-recording journals cite the name as '*coralliophila*'.

3. In 1882 Kowalevsky and Marion collected what they believed was a second specimen of *Neomenia corallophila*, also associated with a coral, from the north coast of the island of Ratonneau, near Marseilles. An abstract of Kowalevsky's 1881(b) paper, published by Brock (1883), incorporated details of this second specimen, evidently supplied by Kowalevsky. The second specimen was in better condition than the first and its features resulted in the species being placed in a new genus, *Lepidomenia* (p. 29), the name referring to the characteristic scaly integument. This is the first valid introduction of the generic name and it is formally attributed to 'Kowalevsky in Brock' (Recommendation 51B of the Code). The single nominal species originally included was *Neomenia corallophila* (incorrectly spelled *coralliophila*; see para. 2 above) which, in this 1883 usage, was a composite of the Algerian and French specimens.

4. As early as January 1883 Kowalevsky and Marion realised that the Marseilles specimen of *Neomenia* represented a species distinct from the Algerian *corallophila*. Marion (1883, p. 69) listed the Marseilles specimen as *Lepidomenia hystrix*. The specific name was a nomen nudum here, but Marion indicated that a full description would be given in the 'Recueil' of the museum. This must have been a provisional title for the new periodical, as the description was eventually published in the *Annales* (Kowalevsky & Marion, 1887, pp. 7–25), although a shortened version of the paper appeared the previous year (Marion & Kowalevsky, 1886, pp. 757–759) from which the name would be available. However, the specific name validly dates from a year earlier: Fischer (1885, pp. 884–889) incorporated an article by Marion on the Aplacophora; this included a description of the genus *Lepidomenia* and a figure of part of the scaly, spinous integument of *Lepidomenia hystrix*. This illustration (drawn by Marion) is an indication sufficient to make the name *hystrix* available from 1885 (Article 12b(7) of the Code), and the attribution of the name to Marion and Kowalevsky (p. 889) established the joint authorship. Authorship of the name would be formally cited as 'Marion & Kowalevsky in Fischer' (Recommendation 51B of the Code). The attribution of *Lepidomenia* to 'Marion, 1884' on the same page is presumably to a manuscript usage.

5. Simroth (1893a) proposed the new generic names *Nematomenia* (p. 324; type species *Dondersia flavens* Pruvot, 1890) and *Echinomenia* (p. 325; type species *Neomenia corallophila* Kowalevsky, 1881). He retained *hystrix* as the sole species in *Lepidomenia* (see also Simroth, 1893b, pp. 138, 233) and this has been interpreted (wrongly; see Article 69b of the Code) as fixing *L. hystrix* as the type species of the

genus. Thiele (1913a, p. 38) synonymized *Echinomenia* with *Nematomenia* (see also Thiele, 1913b, p. 14). Since then, *corallophila* and *hystrix* have been placed consistently in *Nematomenia* and *Lepidomenia* respectively.

6. Both species appear to be rare. *Neomenia* (currently *Nematomenia*) *corallophila* is known only from the type specimen. *Lepidomenia hystrix* is possibly known only from the type locality (Salvini-Plawen, 1969), although Salvini-Plawen (1986, p. 191) gives Llansa (Spain) as a doubtful additional locality. Specimens from north of the island of Riou, near Marseilles, described as *L. hystrix* by Swedmark (1956, p. 93) were subsequently identified as a new species, *L. swedmarki*, by Salvini-Plawen (1985, p. 103). There is also some doubt about the identity of specimens recorded as *L. hystrix* from Strangford Loch, Northern Ireland, by Boaden (1966, p. 127) and from off the north coast of Brittany by Swedmark & Teissier (1967, p. 70).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to confirm the authorship of the generic name *Lepidomenia* as Kowalevsky in Brock (1883);
(2) to confirm the authorship of the specific name *hystrix* (as published in the binomen *Lepidomenia hystrix*) as Marion & Kowalevsky in Fischer (1885);
(3) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Lepidomenia* Kowalevsky in Brock, 1883, and to designate *Lepidomenia hystrix* Marion & Kowalevsky in Fischer, 1885, as the type species;
(4) to place on the Official List of Generic Names in Zoology the name *Lepidomenia* Kowalevsky in Brock, 1883 (gender: feminine), type species by designation in (3) above *Lepidomenia hystrix* Marion & Kowalevsky in Fischer, 1885;
(5) to place on the Official List of Specific Names in Zoology the name *hystrix* Marion & Kowalevsky in Fischer, 1885, as published in the binomen *Lepidomenia hystrix* (specific name of the type species of *Lepidomenia* Kowalevsky in Brock, 1883).

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Case 2739

Helicarion Férussac, 1821 (Mollusca, Gastropoda): proposed conservation, and proposed designation of *Helixarion cuvieri* Férussac, 1821 as the type species

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Abstract. The purpose of this application is to conserve the name *Helicarion* Férussac, 1821 for an Australian genus of semislugs (terrestrial pulmonates). The name first appeared (about three months earlier) as *Helixarion* but this spelling was altered by the author. It is proposed to rule that *Helicarion* is the correct original spelling, and to designate *Helixarion cuvieri* Férussac, 1821 as the type species, in accordance with accustomed understanding and usage.

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1. The *Tableaux systématiques des animaux mollusques suivis d'un Prodrome général...* (often referred to as the *Prodrome*) was a companion work to the *Histoire naturelle, général et particulière des mollusques terrestres et fluviatiles.* The *Prodrome* was issued in instalments (livraisons) of a few pages with livraisons 9–16 of the *Histoire naturelle...* over the years 1821–1822. Both works were begun by J.B.L. d'A. de Férussac and subsequently edited and published by his son (A.E.J.P.J.F. d'A. de Férussac) following his death. The *Prodrome* was published in two versions, large and small, termed 'folio' and 'quarto' by Kennard (1942, p. 12), the folio being on superior paper. Connolly (1912, p. 53) thought that the two editions appeared at different times but they were apparently published simultaneously (Kennard, 1942, p. 106). The *Prodrome* contained two parts: Part 1, *Tableaux systématiques généraux de l'embranchement des mollusques, divisés en familles naturelles*, and Part 2, *Tableaux particulièrs des mollusques terrestres et fluviatiles, classe des gastéropodes*: *Tableau de la famille des Limaces* (pp. 1–27), *Limaçons* (pp. 1–94 folio, pp. 1–90 quarto, which included 'Corrections et Additions' on pp. 71–76 folio, pp. 67–72 quarto), and *Auricules* (pp. 95–114 folio, pp. 91–110 quarto). The text on each page of the folio and quarto editions is the same. However, the folio contains a four-page 'Avertissement' at the beginning of the *Tableau de la famille des limaçons* which causes the subsequent pagination to differ in the two versions. The contents of each livraison and the dates of publication have been set out by Sherborn & Woodward (1901, pp. 74–76; text only) and Kennard (1942, pp. 12–17, 105–118; text and plates). The livraison contents given by Bourguignat (1925, pp. 15–18) are accurate but the publication dates are misleading (Kennard, 1942, p. 13). Part 2 of the *Prodrome* (1821) appeared before Part 1 (1822).

2. The generic name *Helixarion* first appeared in the *Prodrome, Tableau de la famille des limaçons* (p. 23 folio, p. 19 quarto), published in livraison 9 on 6 April 1821 (Sherborn & Woodward, 1901, p. 75; Kennard, 1942, p. 109). Bourguignat (1925, p. 16)

gave the date 1820 for livraison 9 but this is thought to be incorrect (Kennard, 1942, p. 106). The name *Helixarion* also appears in the 'Explanation des planches' (p. vi) in the *Histoire naturelle...*, also published in livraison 9. The generic name appears seven times in livraison 9 with the spelling *Helixarion* (Kennard, 1942, p. 116).

3. Férussac regarded the original spelling of the generic name as incorrect and amended it in his section 'Corrections et Additions' of the *Prodrome, Tableau de la famille des limaçons* (p. 71 folio, p. 67 quarto): 'p. 23 [folio, p. 19 quarto] Tableau synoptique, premier genre: *Helixarion*; lisez *Helicarion*'. The 'Corrections et Additions' were published in livraison 11 on 13 July 1821 (Sherborn & Woodward, 1901, p. 75; Kennard, 1942, p. 109). Férussac always subsequently used the spelling *Helicarion*. It appears, for example, in his 'Recapitulation des espèces mentionnées dans le Tableau de la famille des limaçons' (p. 75 folio, p. 71 quarto), also published in livraison 11, and the *Prodrome*, Part 1 (*Tableaux systématiques généraux de l'embranchement des mollusques...*, p. xxxi), published in livraison 15 on 13 April 1822 (Kennard, 1942, p. 110). Subsequent usage has been overwhelmingly in favour of *Helicarion* even when, before the dating of Férussac's work had been investigated, it was believed that the spelling *Helixarion* dated from 1819. Férussac's correction of the spelling was mentioned by Watson (1920, p. 110, footnote), Iredale (1937, p.7), Baker (1941, p. 265) and Burch (1976, p. 145), all of whom adopted *Helicarion*. Iredale noted that *Helicarion* had been 'spelt *Helixarion*, but corrected in Errata'. Watson wrote: 'On pp. 19 and 20 (or 23 and 24) of Férussac's *Tabl.... Fam. des limaçons*, 1821 the word is misspelt *Helixarion*; but on p. 67 (or 71) of the same work Férussac himself corrected this blunder, and it would seem a pity to ignore his correction'. Baker also noted: 'Although *Helixarion* is certainly the prior spelling, Férussac himself corrected it to *Helicarion* and the original form may have been a misprint, even if it does occur in two papers, both of which probably appeared with livraison 9'. Kennard (1942, p. 116) also mentioned the emendation but considered it invalid. Other authors who have used *Helicarion* include Quoy & Gaimard (1824, p. 465), Gray (1847, p. 169), Fischer (1883, p. 459), Adams & Adams (1855, p. 226), Tryon (1885, p. 168), Thiele (1931, p. 638), Rensch (1932, pp. 30, 31), Solem (1966, p. 24), Franc in Grassé (1968, p. 581), Van Mol (1973), and Kershaw (1979, 1981). Authors who have used *Helixarion* are Thon (1829, p. 149), Bourguignat (1883, p. 9), Neuville & Anthony (1909, p. 324) and Zilch (1959, p. 309).

4. Férussac established the genus *Helixarion* (= *Helicarion*), and the two included species, *cuvieri* and *freycineti* (1821, *Prodrome, Tableau de la famille des limaçons*, pp. 23, 24 folio, pp. 19, 20 quarto), but did not select a type species. Quoy & Gaimard (1824, p. 465) further described the species *freycineti* and commented that it had 'served for the establishment of the genus'. Under Article 69a(iv) of the Code this is a subsequent designation of *freycineti* as the type species. Thon (1829, p. 149) followed this designation and stated that *freycineti* was the type species because it was the larger of the two included species. He mentioned *cuvieri* as a second, smaller species. Gray (1847, p. 169) selected *cuvieri* as the type species, apparently unaware of the earlier designation. Gray's selection was logical in that *cuvieri* was the first species to be mentioned, it was adequately described and illustrated from a shell which Férussac had in his possession, and would be acceptable to most workers on that basis. Gray stated (p. 130) that where it was not clear which species an author had intended for the type of a genus, he had 'chosen either the best known species, or, if the author has given figures, the species which he has figured'. *H. cuvieri* was illustrated, but not named, on pl. 9,

fig. 8 of the *Histoire naturelle*... (livraison 4, 18 September 1819; see Kennard, 1942, p. 109), the legend for which appeared in *Histoire naturelle*... 'Explanation des planches' (p. vi) (livraison 9, 6 April 1821). *H. freycineti* was figured later on a supplementary plate (*Histoire naturelle*..., pl. 9A, figs. 3 and 4, together with *H. cuvieri*, figs. 1 and 2) in livraison 13 (10 November 1821; see Kennard, 1942, p. 110), with the explanation (*Histoire naturelle*... 'Explanation des planches supplémentaires', pp. i, ii) in livraison 17 (2 November 1822; see Kennard, 1942, p. 106). (The generic name here appears as *Helicarion*). Kennard (1942, p. 116) was aware of Thon's (1829) citation of *freycineti* as the type species and commented that the earlier designation meant that Gray's (1847) designation of *cuvieri* was invalid.

5. The subfamily HELICARIONINAE in Australia is divisible into two discrete groups, which can be characterised by features of the ovotestis, epiphallic gland-flagellum, penial structure and the oviduct (Kershaw, unpublished). The distribution of these groups may suggest separate migrations from the north. *Helicarion cuvieri* and *H. freycineti* are classified in different genera which cannot be included in the same group. *H. cuvieri* is considered to have relatively primitive features and a number of related species occur scattered within eastern Australia. *H. freycineti*, on the other hand, is clearly related to a range of mostly north eastern species placed in several genera. *H. cuvieri* has long been recognised as the type species of the genus *Helicarion* (see, for example, Zilch, 1959, p. 309 (who used *Helixarion*) and Burch, 1976, p. 134). In a revision of the genus, one of us (Kershaw, 1979, 1981), unaware of Kennard's (1942) paper, accepted the authority of Zilch with regard to the type species. The generic name *Helicarion* is established and well known for south eastern snails. The implications of the recognition of *H. freycineti* as its type species would be complex and difficult to predict but at the least would require the introduction of a new generic name for the clearly morphologically related group of south eastern species, the exclusion of a number of well known species from the genus, and a reappraisal of other established genera. It may be noted that Férussac (1821, *Prodrome, Tableau de la famille des limaçons*, p. 24 folio, p. 20 quarto) wrote that he was not at all acquainted with the shell of *H. freycineti*. Kershaw (1979, pp. 150, 155, figs. 1, 16) designated a neotype for *cuvieri* and a lectotype for *freycineti*, and provided detailed descriptions of this type material; both specimens are in the Muséum National d'Histoire naturelle, Paris.

6. Both spellings of the family name, HELICARIONIDAE and HELIXARIONIDAE, are in use, the former being that most frequently seen. Authorship of the former name (published as the sub-family HELICARIONINAE) is usually ascribed to Godwin-Austen (1883 (October), p. 146), while Bourguignat (1883 (April), p. 9) is cited as author of the latter name. Recent authors who have adopted the spelling HELIXARIONIDAE are Kira (1955, p. 176) and Vaught (1989, p. 96). Recent authors using HELICARIONIDAE include Thiele (1931, p. 637), Baker (1941, p. 208), Zilch (1959, p. 295, even though he used *Helixarion* as the generic name), Solem (1966, p. 22; 1978, p. 92), Franc in Grassé (1968, p. 578), Boss in Parker (1982, p. 1076), and Tillier (1984, p. 174). It would be confusing to spell the generic and family-group names in different ways.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to rule that the correct original spelling of the generic name *Helixarion* Férussac, 1821 (April) is deemed to be *Helicarion*;

(b) to set aside all designations of type species for the nominal genus *Helicarion* Férussac, 1821 prior to that by Gray (1847) of *Helicarion cuvieri* Férussac, 1821;

(2) to place on the Official List of Generic Names in Zoology the name *Helicarion* Férussac, 1821 (gender: masculine), type species by subsequent designation by Gray (1847) *Helicarion cuvieri* Férussac, 1821, as ruled in (1)(b) above, spelling confirmed in (1)(a) above;

(3) to place on the Official List of Specific Names in Zoology the name *cuvieri* Férussac, 1821, as published in the binomen *Helixarion cuvieri* (specific name of the type species of *Helicarion* Férussac, 1821);

(4) to place on the Official List of Family-Group Names in Zoology the name HELICARIONIDAE (correction of HELIXARIONIDAE Bourguignat, 1883 (April)) (type genus *Helicarion* Férussac, 1821);

(5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Helixarion* Férussac, 1821, ruled in (1)(a) above to be an incorrect original spelling of *Helicarion*;

(6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name HELIXARIONIDAE Bourguignat, 1883, an incorrect original spelling of HELICARIONIDAE.

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Case 2588

Haminaea Leach, [1820] (Mollusca, Gastropoda): proposed conservation

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Abstract. An application to confirm the spelling of a marine gastropod genus as *Haminoea* was published in 1987; the spellings *Haminaea* and *Haminea* are also in use. Subsequent investigation has shown that the name derives from *Haminaea*, which appeared in a paper by Leach which was formally unpublished but nevertheless widely circulated. The purpose of the present application is to rule that *Haminaea* Leach, [1820] is nomenclaturally available.

1. An earlier application (BZN **44**: 166–167) sought to stabilise the spelling of the generic name *Haminoea*. Amended proposals were sent to the Commission for voting in March 1989 but further investigations and comments received during the voting period showed the need for more information and an Opinion has not been published.

2. Earlier authors (Herrmannsen, 1852, p. 60; Jeffreys, 1867, p. 437; Iredale, 1914, p. 172) commented that there were three alternative spellings for the generic name and, as noted previously (BZN **44**: 166, para. 4), these spellings (*Haminaea*, *Haminoea* and *Haminea*) are currently in use. This is due to the presence of an 'ae' diphthong in the original spelling of the name (*Haminaea*), and its complex history of publication.

3. The generic name *Haminaea* appeared in two works by Leach, *Classification of British Mollusca* [1818] and *A synopsis of the Mollusca of Great Britain* [1820]. According to Robert Burn (*Geelong, Australia*; 1990, in litt.) the name is an alternative spelling of the classical Aminaea, a district in Picenum on the Adriatic, famous for its wines. In his introduction to the *Synopsis* (p. xii) Leach wrote 'I have invariably named the genera, as far as possible, from their essential characters'. Where this was not possible Leach chose classical or biblical names which 'would not carry with them any descriptive significance' (see Knight, 1900, pp. 272, 275). Leach died before either of the works could be formally published and this was only undertaken many years later by Gray (1847 (October) and 1852 respectively) for his 'excellent friend and first teacher in zoology'. Nevertheless, both works were available to conchological workers in Britain and Europe from 1820 onwards through page proofs and hand-written copies of the page proofs. In his introduction to Leach's *Classification* (1847, p. 267) Gray wrote that 'several British conchologists had even taken the trouble to copy the proof sheets of his work' and that 'several copies of Dr Leach's list were in several cabinets at the time he was at work on the subject' (see also para. 8 below). In his preface to Leach's *Synopsis*,

Gray (1852, p. vii) noted that 'this work was in the course of printing when the Author was prevented from completing it by ill health, in 1820. The first 116 pages were actually printed and the plates engraved, and more than one copy of the Proofs were in circulation at the time of its interruption'. Gray (1847, p. 268) also noted that 'Risso, Capt. Brown and others have published several of them [Leach's names] in their works'. Indeed, in reviewing Risso's 1826 work on molluscs from the south of France, Bourguignat (1861, pp. 17–22) commented at length on the large number of names for genera that had been derived from Leach's manuscript (cited as 1820); he noted that Leach had spent a period in Nice during his illness when he had met Risso. Brown (1827, preface) wrote that he 'found it necessary to introduce some of Dr Leach's Genera', and many of the names in his work were attributed to 'Leach MSS'. In his 1844 work, Brown (preface) noted 'In recording the names of those to whom the Author is indebted for aid... he must particularly notice those of his late lamented friend Dr Leach,... [who] with that noble liberality for which he was prominently distinguished — although engaged with a similar work at the time the Author was preparing his First Edition — threw open his treasures for his use, and otherwise aided him as far as possible in his investigations'. Again, a number of names in this work were credited to 'Leach MSS' and 'Leach, Moll.', with references to the page proofs of Leach's *Synopsis*. Brown (p. 134) further cited Leach's work: '*Synopsis of British Mollusca*, 1820 (Unpublished)'. In the introduction to his revision of Turton's *Manual of the land and fresh-water shells of the British Islands*, Gray (1840, p. 1) noted that other authors had 'all, in a great measure, worked from the collection now under my charge, which contains the materials used by Dr Leach in preparing his as yet unedited work on British Mollusca', and (p. 58) that copies of Leach's work ('London, 1820. 8vo; not yet published') were in the possession of other workers. Herrmannsen (1846, 1847–1849, 1852) also cited Leach's manuscript ('1820. *Brit. Moll.*') and credited several names to it; furthermore, he recognised that a number of names in Risso (1826) and Turton (1831) originated in Leach's unpublished work (see, for example, 1846, pp. 80, 580, 582). In 1846 (p. 1, footnote) Herrmannsen noted 'Leachii Synopsis Molluscorum Britanniae, liber rarissimus, typis quidem jam anno 1820 excusus, sed hucusque publici juris non factus... omni auctoritate destituitur'. In 1852, Herrmannsen (p. 60) recorded the name *Haminaea* credited to 'Leach mscr., t[este] Gray, 1847, *Ann. Mag. N.H.*, XX'. Knight (1900, p. 271) referred to part of Leach's *Synopsis* having been in type and circulated from 1820. The name *Haminaea* would thus have been known to many from Leach's two manuscripts. There is a bound copy of the page proofs of Leach's *Synopsis* [1820] in the mollusc library of the Natural History Museum, London (see Woodward's *Catalogue of the Library of the British Museum (Natural History*), 1910, p. 1072); *Haminaea* appears on p. 57. The proofs are marked, possibly in C.D. Sherborn's handwriting, '1820, or more likely 1819'. Gray (1847 (November), p. 161) gave their date as 1819, although earlier (1840, p. 58) as 1820. They were certainly in circulation by 1820 and have been cited with the latter date by subsequent authors.

4. The name appeared, but with the spelling *Haminoea*, in the Conchology section of Part 2 (*The natural history of the district...* by Turton & Kingston) of *The Teignmouth, Dawlish and Torquay guide* (1830), by 'N.T. Carrington and others'. The *Catalogue of the library of the BM(NH)* (1915, p. 2155), following Jeffreys (1867, pp. 108, 231), mentioned that the portion on conchology 'seems to have been issued separately in

1829'. Copies of this 'separate' publication, entitled *Conchology. An enumeration of such marine shells as have been found on the adjacent coasts*, were included in editions of *A guide to the watering places on the coast between the Exe and the Dart*. It appears that there were editions for 1817, 1818 (McMillan, 1961, p. 37), and 1821, and Burns (1990, in litt.) refers to an 1823 edition. The *Enumeration* was anonymous and unpaginated (it has 20 pp.) and does not include the name *Haminoea*. The introduction (p. viii) to the guide notes the anonymity of the contributors: 'Delicacy forbids the publisher from revealing the names of those who have assisted him; the articles of conchology, and botany, will speak for themselves: for the rest, he craves the indulgence of a liberal public'. By about 1828 the guide became *The Teignmouth, Dawlish and Torquay guide*, and in 1830 this included a second part (*The natural history of the district...*) by Turton & Kingston, with a revised version of the *Enumeration*, entitled *Conchology* and, for the first time, a supplementary portion called *Conchology, arranged on the amended system*. The latter included the first appearance of the generic name *Haminoea* (genus no. 63). Part 2 of *The Teignmouth, Dawlish and Torquay guide* was issued bound in with the Teignmouth guide and as a separate publication, in both cases without pagination (but c. 200 pp.); the 1829 date for publication given by Jeffreys probably referred to a proof copy and 1830 is the correct date (Iredale, 1914, pp. 171–172). There was at least one subsequent edition of *The Teignmouth guide*, in 1832.

5. Kingston was a botanist who collaborated with Turton on the natural history part of the guide, and the conchology section, revised from the *Enumeration*, was probably by Turton alone. Jeffreys (1867, p. 231) mentioned the '*Enumeration of marine shells*... a copy of which was presented to me by Dr Turton 'from the author'' and (p. 433) 'Turton in his little treatise entitled *Conchology, arranged on the amended system*'. Winckworth (1932, p. 231), McMillan (1961, p. 37), Thompson (1976, pp. 18, 98, 117; 1988, p. 40) and Thompson & Brown (1976, p. 24) have all attributed *Haminoea* (as '*Haminea*' in Thompson and Thompson & Brown) to Turton alone, and the name would be formally attributed to '[Turton] in Turton & Kingston in Carrington' (Recommendation 51B of the Code). Turton's conchological publications show many references to Leach's *Synopsis* (see, for example, Turton (1831) in which several names are cited with references to Leach's page proofs) and it seems that the spelling *Haminoea* arose in transcription either between Leach's proofs and Turton's manuscript for his *Conchology, arranged on the amended system*, or between the latter and the printed page. After carefully studying how Turton wrote 'a' and 'o' in a letter written in 1828, Burn (1990, in litt.) suspects that the spelling *Haminoea* was a printer's error.

6. Gray formally published Leach's *Classification* [1818] in October 1847, and Leach's *Synopsis* [1820] in 1852 (see para. 3 above). Leach's name *Haminaea* appeared in these publications on pp. 268 and 40 respectively.

7. The spelling *Haminea* first appeared in Gray's (1847 (November), p. 161) publication *A list of the genera of Recent Mollusca, their synonyma and types*, the name being based on 'Leach MSS 1819'. In fact, Leach's [1820] work used the spelling *Haminaea* (para. 3 above). It is noteworthy that Gray's own bound copy of his November 1847 publication in the Natural History Museum, London, which is interleaved with notes by the author (see *Catalogue of the library of the BM(NH)*, 1904, p. 713), includes many alterations and insertions to the text made by Gray in his own hand; one is an emendation of the printed '*Haminea*' to '*Haminaea*', together with an addition '1818. l.c. xx 268

Brit. Moll.' (referring to the name in Leach's [1818] manuscript and its 1847 publication (*Annals and Magazine of Natural History*, **20**: 268)) after 'Leach MSS 1819'.

8. It is thus evident that the spellings *Haminoea* and *Haminea* arose from the name *Haminaea* in Leach's widely circulated [1818] and [1820] manuscripts, where the name was spelt with an 'ae' diphthong. As mentioned in para. 2 above, all three spellings of the name are in use. The original application sought to conserve the spelling *Haminoea*; however, stability in the nomenclature would be better served by conserving *Haminaea*, Leach's original spelling and the source of the other two, through a Commission ruling that the name *Haminaea* be deemed available from Leach, [1820]. In 1847 Gray, in his introduction to Leach's *Classification* (p. 267), wrote 'I am much inclined, as these names were for years exhibited in the Museum collection and in the cabinets of Mr Stephens, the late Mr James Sowerby, my own and others, to regard them as published and having priority from 1818'. However, Gray's 1847 published text of Leach's [1818] paper indicates that the name *Haminaea* was probably a nomen nudum in 1818 (there is no copy of this manuscript in the Natural History Museum, London). In the [1820] page proofs of Leach's *Synopsis* the genus and species are described on p. 57 (see also p. 40 of the work as published by Gray in 1852) and the name would be available. It is proposed that only the name *Haminaea* should be made available from Leach's [1820] manuscript; no other names in current usage are attributed to Leach's [1818] or [1820] works and disturbance in mollusc nomenclature would be caused in making the whole of these manuscripts available. To avoid any confusion in the future about the availability of other names, we propose that Leach's *Classification of the British Mollusca* [1818] and *Synopsis of Mollusca of Great Britain* [1820] be suppressed for nomenclatural purposes.

9. Leach's [1820] MS included three species in *Haminaea*: *H. cuvieri*, *H. dilatata* and *H. elegans*, *H. cuvieri* being a replacement name for *Bulla hydatis* auctt. *B. hydatis* Linnaeus, 1758 was excluded from *Haminaea* as Leach believed this 'belonged to a very different genus', but [Turton] in Turton & Kingston (1830, genus no. 63) noted that *Haminoea* (sic) included *B. hydatis*, and Gray (1847 (November), p. 161) designated *B. hydatis* as the type species of *Haminea* (recte *Haminaea*; see para. 7) 'Leach MSS 1819'; neither Turton nor Gray cited an author for *hydatis*. Brown (1844, p. 57) and Jeffreys (1867, p. 439) considered *hydatis* auctt. (= *cuvieri* Leach) to be included in *hydatis* Linnaeus, while Forbes & Hanley (1853, p. 531) thought that it was 'probably' included. Herrmannsen (1852, p. 60) gave *hydatis* Linnaeus as the type species of *Haminaea*. Pilsbry (1895, p. 352), Winckworth (1932, p. 231), Zilch (1959, p. 41 (citing the generic name as '*Haminaea* Turton & Kingston, 1830')) and Cernohorsky (1985, p. 63 (citing the name as '*Haminea* Leach in Gray, 1847')) accepted *Bulla hydatis* Linnaeus, 1758 as the type species.

10. As mentioned in the original application (BZN **44**: 166, para. 5), the family-group name HAMINEINAE (= HAMINEIDAE) Pilsbry, 1895 (p. 351) was based on the spelling *Haminea*. However, Pilsbry's list of authors who had previously used the generic name (p. 352) included '*Haminea* Leach MS. Gray, P.Z.S., 1847 p. 161' and '*Haminaea* Leach, Moll. Gt. Brit., p. 40, 1852'. The name *Haminea* was an incorrect subsequent spelling or unjustified emendation of Leach's *Haminaea* (para. 7 above) and it is proposed that the spelling HAMINAEIDAE be formally adopted.

11. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to suppress for nomenclatural purposes the works *The classification of the British Mollusca* [1818] and *A synopsis of the Mollusca of Great Britain* [1820] by W.E. Leach;
  (b) to rule that the generic name *Haminaea* Leach is deemed to be available in *A synopsis of the Mollusca of Great Britain* [1820], despite suppression of the work in (1)(a) above;
  (c) to set aside all previous fixations of type species for the nominal genus *Haminaea* Leach, [1820] and to designate *Bulla hydatis* Linnaeus, 1758 as the type species;

(2) to rule that the correct original spelling of the family-group name HAMINEIDAE Pilsbry, 1895 is deemed to be HAMINAEIDAE;

(3) to place on the Official List of Generic Names in Zoology the name *Haminaea* Leach, [1820] (gender: feminine), type species by designation in (1)(c) above *Bulla hydatis* Linnaeus, 1758;

(4) to place on the Official List of Specific Names in Zoology the name *hydatis* Linnaeus, 1758, as published in the binomen *Bulla hydatis* (specific name of the type species of *Haminaea* Leach, [1820]);

(5) to place on the Official List of Family-Group Names in Zoology the name HAMINAEIDAE Pilsbry, 1895 (spelling emended in (2) above) (type genus *Haminaea* Leach, [1820]);

(6) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology:
  (a) *Haminoea* [Turton] in Turton & Kingston in Carrington, 1830, an incorrect subsequent spelling of *Haminaea* Leach, [1820];
  (b) *Haminea* Gray, 1847, an incorrect subsequent spelling of *Haminaea* Leach, [1820];

(7) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name HAMINEIDAE Pilsbry, 1895 (spelling emended to HAMINAEIDAE in (2) above).

(8) to place on the Official Index of Rejected and Invalid Works in Zoology the papers *The classification of the British Mollusca* [1818] and *A synopsis of the Mollusca of Great Britain* [1820] by W.E. Leach, as suppressed in (1)(a) above.

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Case 2670

Kobeltia Seibert, 1873 (Mollusca, Gastropoda): proposed confirmation of *Arion hortensis* Férussac, 1819 as the type species

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Abstract. The purpose of this application is to confirm the nominal species *Arion hortensis* Férussac, 1819 as the type species of the terrestrial slug subgenus *Kobeltia* Seibert, 1873, in accordance with existing usage. The original description was of a misidentified species.

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1. Seibert (1873, p. 81) considered a slug which he supposed was *Arion hortensis* Férussac, 1819 to be generically distinct from other species of *Arion* Férussac, 1819 and proposed the new name *Kobeltia*. This name was neglected by subsequent authors for more than half a century until Hesse (1926, p. 66) adopted it as a 'section' within the genus *Arion*, with *A. hortensis* Férussac as the first included species. Most authors since have followed Hesse's system of classification, replacing 'section' by 'subgenus'.

2. Férussac's nominal species *A. hortensis* (1819, pp. 65–66) is represented by pl. 2 (not pl. 12 as cited on p. 65), figs. 4–5. He also described *A. hortensis* var. α (1819, pp. 65–66, pl. 2, fig. 6), which may well be the species later described by Mabille (1868, p. 137) as *A. distinctus* (Davies, 1979, p. 123; see para. 6 below); this variant is excluded from the type series of *A. hortensis* by Article 72b of the Code. The dates of publication of Férussac's work were investigated by Sherborn & Woodward (1901, pp. 74–76; text only) and Kennard (1942, pp. 12–17, 105–118; text and plates).

3. Seibert's interpretation of *Arion hortensis* Férussac, 1819 when he proposed *Kobeltia* was based on the work of Lehmann (1873, pp. 21–24, pl. 2, figs. 4a, pl. 7, fig. 4). Lehmann's description and figures, however, are not of *A. hortensis* but a species currently referred to as *Arion* (*Carinarion*) *fasciatus*. This latter species was originally described as *Limax fasciatus* by Nilsson in 1823 (pp. 3–5) and it has been studied in detail by a number of authors, including Likharev & Wiktor (1980, pp. 407–409). Lehmann's misidentification of *A. hortensis* was noted by Simroth (1885, pp. 277–278, 288), who assigned Lehmann's species to *A. bourguignati* Mabille, 1868 (p. 138).

4. Cockerell (1891, p. 20) considered *A. bourguignati* to be a junior subjective synonym of *A. circumscriptus* Johnston, 1828 (p. 76), which Hesse (1926, p. 65) selected as the type species of his 'section' (now subgenus) *Carinarion*. Lohmander (1937) suggested that three very closely related species had been confused under the name '*circumscriptus*': *A. circumscriptus* Johnston, 1828 s.s., *A. silvaticus* Lohmander, 1937 and *Limax fasciatus* Nilsson, 1823. Whether these are indeed distinct biological species is still a much debated issue (Backeljau et al., 1987).

5. Acceptance of Seibert's designation of *A. hortensis* sensu Lehmann (1873), now recognised (Backeljau & De Bruyn, 1990, in press) to be *Limax fasciatus* Nilsson, 1823, as the type species of *Kobeltia* Seibert, 1873 would undoubtedly give rise to much

confusion in the nomenclature of what is already a taxonomically complex group. In addition, if *fasciatus* and *circumscriptus* are considered to be synonyms, or to belong in the same subgenus, *Carinarion* Hesse, 1926 would become a junior subjective synonym of *Kobeltia* Seibert, 1873. Following Hesse's (1926) monograph the identity of the type species of *Kobeltia* has been understood as '*Arion hortensis*' (see para. 6 below) and not *Limax fasciatus* Nilsson, 1823. A list of more than 40 references is held by the Commission Secretariat demonstrating usage of the name *Kobeltia* in which Hesse's interpretation of the genus group has been adopted, and I have not found a single paper in which *fasciatus* is even included in the subgenus.

6. Recently, Davies (1977, p. 173; 1979, p. 123) has shown that three distinct taxonomic species have been known under the name '*A. hortensis*'. The first of these species is *A. hortensis* s.s. (Férussac, 1819, p. 65, pl. 2, figs. 4–5). The species is known from the British Isles, parts of France, Belgium, the Netherlands, Germany and Switzerland. Two original specimens, labelled 'montagnes env. de Clermont (Oise)', are in the Muséum National d'Histoire naturelle in Paris, one of which has been dissected and was designated as the lectotype by De Winter (1984, p. 3, fig. 3). The second species, *A. distinctus* Mabille, 1868 (p. 137), is probably the species represented by Férussac's *A. hortensis* var. α (1819, pl. 2, fig. 6). It is found in much of Europe and North America and has a type locality at Sèvres, near Paris. No original material survives but a neotype (no. alcohol 9120 in the Rijksmuseum van Natuurlijke Historie, Leiden, collected from Sèvres in 1983) was designated by De Winter (1984, p. 3, figs. 2 and 4). The third species, *A. owenii* Davies, 1979 (p. 126), may possibly be the same as *Limax subfuscus* Draparnaud, 1805, cited by Taylor (1905, p. 217) as *A. hortensis* Férussac var. *subfusca*. *A. owenii* has a holotype, BM(NH) 197910, from East Donegal in Ireland. The species is known from the north of Ireland and locally in southern Scotland, Wales and Cornwall. The three species differ in their genitalia, spermatophores, mating behaviour and, to a lesser extent, in their external morphology (Davies, 1977, 1979; Backeljau, 1981; De Wilde, 1983; and Backeljau & Marquet, 1985), and have been shown to be biochemically distinct (Backeljau, 1985a and b). All three are included in the subgenus *Kobeltia*.

7. A number of 20th century authors have described *Kobeltia* (see, for example, Hesse, 1926, p. 66; Germain, 1930, p. 77; Wiktor, 1973, p. 43; Likharev & Wiktor, 1980, p. 409; and Grossu, 1983, pp. 55–58). Backeljau & De Winter (1987, p. 177) discussed the problem of three closely related species having hitherto been confused as '*A. hortensis*'. To avoid further confusion, and to rectify Seibert's earlier mistake in the identity of *hortensis* with *Limax fasciatus*, I now propose to confirm *A. hortensis* Férussac, 1819, as defined by the lectotype designated by De Winter (1984), as the type species of *Kobeltia*. It may be noted that most, if not all, of the older records of '*A. hortensis*' from Germany, Seibert's native country, are actually of *A. distinctus*, and only one record of *A. hortensis* s.s. is known (Backeljau & De Winter, 1987).

8. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to confirm that *Arion hortensis* Férussac, 1819, is the type species of the nominal genus *Kobeltia* Seibert, 1873;

(2) to place on the Official List of Generic Names in Zoology the name *Kobeltia* Seibert, 1873 (gender: feminine), type species *Arion hortensis* Férussac, 1819, as confirmed in (1) above;

(3) to place on the Official List of Specific Names in Zoology the name *hortensis* Férussac, 1819, as published in the binomen *Arion hortensis* (specific name of the type species of *Kobeltia* Seibert, 1873), and as defined by the lectotype designated by De Winter (1984).

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Case 2747

Strophomena de Blainville, 1825 (Brachiopoda): proposed designation of *Leptaena planumbona* Hall, 1847 as the type species

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Abstract. The purpose of this application is to stabilise the name of the important Ordovician brachiopod genus *Strophomena* de Blainville, 1825 by designating *Leptaena planumbona* Hall, 1847 as its type species in place of the poorly known species *Strophomena rugosa* de Blainville, 1825.

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1. The brachiopod genus *Strophomena* has given its name not only to the family STROPHOMENIDAE King, 1846 and the superfamily STROPHOMENACEA, but also to the suborder Strophomenidina and the order Strophomenida; this last is the most numerous order of articulate brachiopods with more than a thousand genera and includes the productids and chonetids. This classification has been accepted for a long time and forms an integral part of the brachiopod volume of the *Treatise on Invertebrate Paleontology* (Williams, 1965).

2. However, the nominal genus *Strophomena* is not well founded and this application proposes action to stabilise the name. The problem has been well known for over a hundred years, being discussed at length by, among others, Davidson (1853, pp. 105–108), Hall & Clarke (1892, pp. 246–250), Nickles (1903, pp. 214–217) and Pope (1976, p. 154), but never resolved.

3. Rafinesque & Clifford (1820, p. 232) referred to 'plusieurs nouveaux genres, tels que *gonotrema*, *diclisma*, *pleurinia*, *stropheria*, *strophomenes*, *clipsilis* etc., outre les vrais genres *terebratula* et *productus*' when describing a new fauna from the Ordovician of Kentucky; however, there was no further description of '*strophomenes*' apart from making clear that they were shells. Defrance (1824, p. 5) used the phrase 'de coquilles bivalves du genre Strophomène' when describing a block from the Silurian of Dudley, England; in a table (p. 110) he stated that 'Strophomène' had three species but he did not name them. De Blainville (1825, p. 513) was the first to give a proper description of the genus and also the first to use the spelling *Strophomena*, thereby establishing the name. Under Article 50a of the Code, authorship must be attributed to de Blainville even though he attributed authorship to Rafinesque.

4. De Blainville mentioned only one species by name, '*Strophomena rugosa* Rafin.', which is therefore the type species by monotypy with de Blainville as the author. He figured (pl. 53, fig. 2) the dorsal and ventral valves of one specimen of *Strophomena rugosa*, although the plate was probably not published until September 1827 (note in the copy in the Natural History Museum, London). The two figures show a generalised shield-shaped brachiopod which might represent a strophomenid, but could be a rafinesquinid or even a form within an entirely different superfamily such as an orthid.

De Blainville omitted to mention any locality or geological horizon for *Strophomena* or *S. rugosa*.

5. King (1846, p. 28) named the family STROPHOMENIDAE to include *Strophomena* and related genera and it is this work which forms the basis of the key position that *Strophomena* and the strophomenids occupy today. This position was reinforced by the substantial monograph of Davidson (1853, 1871) who attributed many species to the genus. However, several nineteenth century authors agonised about the true identity of the genus and in particular the species *rugosa*.

6. Hall & Clarke (1892, p. 246), referring to *Strophomena rugosa*, wrote 'there seems to be sufficient reason to believe that it is the same species which was subsequently described as *Leptaena planumbona*'. This species, named by Hall (1847, p. 112), is a well-founded and properly described brachiopod from the Ordovician Trenton Limestone of Ohio, Indiana and Kentucky.

7. Subsequent authors have tended to follow Hall & Clarke in using *planumbona* to define their concept of *Strophomena*. Nickles (1903, p. 215) did not accept that de Blainville's description or figures justified Hall & Clarke's synonymy with *Leptaena planumbona*. Nevertheless, he accepted Hall & Clarke's solution to the problem, writing that 'the wisest solution of the difficulties and the one that observes the real intent, if not the exact letter of the law of priority is to recognize ... the genus *Strophomena* ... with the *Strophomena planumbona* (Hall) as its type'. In the *Treatise on Invertebrate Paleontology*, Williams (1965, p. H384) gave the type species of *Strophomena* as '*S. rugosa* (?conspecific with *Leptaena planumbona* Hall, 1847)'. Pope (1976, p. 154) wrote that 'authors subsequent to Nickles ... also based *Strophomena* upon *S. planumbona* (Hall)' and 'the type should be fixed as *Strophomena planumbona* (Hall) by appeal to the International Commission on Zoological Nomenclature so that no uncertainty continues'.

8. Recent systematic papers (e.g. Cocks, 1978, p. 107; Rice, 1987, p. 157) correctly cite the nominal species *Strophomena rugosa* as the type species of *Strophomena*, it being the only originally included species. However, the name *Strophomena rugosa* has not been used in anything other than a formal sense since de Blainville (1825) and its true identity is uncertain. Since *Leptaena planumbona* Hall, 1847 is currently used as a valid name for the type species of *Strophomena*, stability would be achieved by designation of *L. planumbona* as the type species of *Strophomena*.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:
  (a) to set aside all previous fixations of type species for the nominal genus *Strophomena* de Blainville, 1825 and to designate *Leptaena planumbona* Hall, 1847 as the type species;
  (b) to suppress the specific name *rugosa* de Blainville, 1825, as published in the binomen *Strophomena rugosa*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
(2) to place on the Official List of Generic Names in Zoology the name *Strophomena* de Blainville, 1825 (gender: feminine), type species by designation in (1)(a) above *Leptaena planumbona* Hall, 1847;
(3) to place on the Official List of Specific Names in Zoology the name *planumbona* Hall, 1847, as published in the binomen *Leptaena planumbona* (specific name of the type species of *Strophomena* de Blainville, 1825);

(4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *rugosa* de Blainville, 1825, as published in the binomen *Strophomena rugosa*, and as suppressed in (1)(b) above.

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Case 2703

HOMALOPTERIDAE Bleeker, 1859 (Osteichthyes, Cypriniformes): proposed precedence over BALITORIDAE Swainson, 1839

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Abstract. The purpose of this application is to give precedence to the commonly used family-group name for the flat loaches HOMALOPTERIDAE Bleeker, 1859 over the unused senior synonym BALITORIDAE Swainson, 1839.

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1. In a study of Indian and Indochinese loaches of the genus *Balitora* Gray, 1830 Kottelat (1988) reported that although interrelationships among members of the family HOMALOPTERIDAE have been variously interpreted, its type genus *Homaloptera* van Hasselt in Temminck, 1823 has always been considered closely related to *Balitora* Gray, 1830 and placed in the same family, subfamily and tribe. Thus his rediscovery of the hitherto overlooked family-group name BALITORINAE Swainson, 1839 (p. 190) means the family-group name HOMALOPTERIDAE Bleeker, 1859 (p. xxviii) is a junior subjective synonym of BALITORIDAE Swainson, 1839. In accordance with Article 23 of the Code, I am referring this case to the International Commission on Zoological Nomenclature together with a proposal to preserve nomenclatural stability.

2. The family-group name HOMALOPTERIDAE Bleeker, 1859 has been widely accepted by zoologists. All recent publications use this name (e.g. Hora, 1920; Hora, 1931; Hora, 1932; Hora, 1941; Silas, 1953; Jayaram, 1981). The family-group name BALITORIDAE has not been used for any of the homalopterid fishes since Swainson established it (1839) until Kottelat (1988) nearly 150 years later.

3. Kottelat (1988, p. 489) himself admits that the replacement of HOMALOPTERIDAE by BALITORIDAE creates additional confusion in the suborder Cobitoidei. I cannot follow Kottelat in his opinion that an immediate introduction of the family-group name BALITORIDAE, which had been overlooked for about 150 years, would help to create a stable nomenclature (Kottelat, 1988, p. 489).

4. Kottelat (1988, p. 489) expects changes in systematics and nomenclature in the suborder Cobitoidei. Under these circumstances all possible attempts have to be made to stabilize nomenclature.

5. In 1986 Kottelat (BZN **43**: 360–362) proposed the designation of *Cobitis taenia* Linnaeus, 1758 as type species of the genus *Cobitis* Linnaeus, 1758. He referred (p. 361) to the fact that otherwise the family HOMALOPTERIDAE would become a subfamily of COBITIDAE. In Opinion 1500 (June, 1988) the Commission used its plenary powers to designate *Cobitis taenia* as type species of *Cobitis* Linnaeus, 1758 and thus stabilized the family-group name HOMALOPTERIDAE Bleeker, 1859. However, the name remains threatened by the discovery of the unused senior synonym BALITORIDAE.

6. The type genus of HOMALOPTERIDAE Bleeker, 1859 is *Homaloptera* van Hasselt in Temminck, 1823 (p. 133), the type species of which is *H. ocellata* van der Hoeven, 1833

by subsequent monotypy. *Homaloptera* is available by description but the two species originally included in it (*H. fasciata* van Hasselt in Temminck, 1823 and *H. javanica* van Hasselt in Temminck, 1823) are both nomina nuda. On p. 132 of van Hasselt's work, *Homaloptera* is spelt *Homalophra*. Kottelat (1987) acted as first reviser and selected the commonly used spelling *Homaloptera*. The specific name *ocellata* van der Hoeven, 1833 is a nomen nudum in the book *Handboek der Dierkunde* ... (1833a), the description given on p. 211 referring to the genus only. However, in the accompanying atlas (1833b) *Verzameling der Platen* ..., (to which no mention is made in the *Handboek*, although it is referred to in the translation from the 2nd Dutch edition, 1856–1858), p. 8 (Verklaring der platen) states that pl. 13 fig. 12 is '*Homaloptera ocellata* v. Hass; eene nieuwe, vroeger nog niet afgebeelde, soort uit Java. Fig. 12b. Kop van dezen visch, van boven gezien. (11. bl. 211)'. Plate 13, figure 12 depicts a whole fish, fig. 12b the head of a fish, so the name is available. The type genus of BALITORIDAE Swainson, 1839 is *Balitora* Gray, 1830 (pl. 88). The type species of this genus is *Balitora brucei* Gray, 1830 (pl. 88) by subsequent designation by Jordan (1919, p. 178).

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to give precedence to the family-group name HOMALOPTERIDAE Bleeker, 1859 over the family-group name BALITORIDAE Swainson, 1839;

(2) to place the following names on the Official List of Generic Names in Zoology:
  (a) *Balitora* Gray, 1830 (gender: feminine), type species by subsequent designation by Jordan (1919) *Balitora brucei* Gray, 1830 (type genus of BALITORIDAE Swainson, 1839);
  (b) *Homaloptera* van Hasselt in Temminck, 1823 (gender: feminine), type species by subsequent monotypy *Homaloptera ocellata* van der Hoeven, 1833 (type genus of HOMALOPTERIDAE Bleeker, 1859);

(3) to place the following names on the Official List of Specific Names in Zoology:
  (a) *brucei* Gray, 1830, as published in the binomen *Balitora brucei* (specific name of the type species of *Balitora* Gray, 1830);
  (b) *ocellata* van der Hoeven, 1833, as published in the binomen *Homaloptera ocellata* (specific name of the type species of *Homaloptera* van Hasselt in Temminck, 1823);

(4) to place the following names on the Official List of Family-Group Names in Zoology:
  (a) HOMALOPTERIDAE Bleeker, 1859 (type genus *Homaloptera* van Hasselt in Temminck, 1823) with the endorsement that it is to be given precedence over BALITORIDAE Swainson, 1839 (type genus *Balitora* Gray, 1830);
  (b) BALITORIDAE Swainson, 1839 (type genus *Balitora* Gray, 1830) with the endorsement that it is not to be given priority over HOMALOPTERIDAE Bleeker, 1859 (type genus *Homaloptera* van Hasselt in Temminck, 1823).

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Case 2715

Lepomis Rafinesque, 1819 (Osteichthyes, Perciformes): proposed fixation of masculine gender for the name

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Abstract. The purpose of this application is to fix as masculine the gender of *Lepomis* Rafinesque, 1819, for a genus of fish, including important food, game and laboratory research species. This is in accordance with Rafinesque's original intention and almost universal usage until 1988 when the gender was amended to feminine on etymological grounds with which the authors disagree.

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1. In 1819 Rafinesque (p. 420) established the generic name *Lepomis* and designated *Labrus auritus* Linnaeus, 1758 (p. 283) as the type species; he established two new species which he called *Lepomis cyanellus* and *L. macrochirus*. Although he did not state that the gender of *Lepomis* was masculine, it is clear from the ending of the three specific names that this was his intention.

2. Rafinesque did not specify the derivation of *Lepomis*, but this can be inferred from his two subgenera, *Pomotis* and *Apomotis*. He characterized *Pomotis* as having 'opercule auriculé' (an ear on the opercle) and *Apomotis* as 'opercule sans auricle'. Since *Pomotis* and *Apomotis* both use the Greek *poma* (n., a lid or cover) to mean the operculum or gill cover, we conclude that the ending of *Lepomis* stems from the same Greek root. That this interpretation is correct is confirmed in that Rafinesque characterized *Lepomis* as having 'tète et opercules écailleux' (head and opercles scaled). Furthermore, in a paper the following year, Rafinesque (1820, p. 30) stated that 'the name means scaly gills'. Jordan & Gilbert (1877, p. 102) also considered *Lepomis* to be derived from *lepis* plus *poma*.

3. *Lepomis* has almost universally been treated as masculine as in Rafinesque's 1819 paper. A notable early exception was Rafinesque himself who, in his 1820 paper, treated *Lepomis* as feminine as indicated by his use of the specific names *pallida*, *trifasciata*, *salmonea* and *notata*. More recently, Bailey & Robins (1988, p. 100) pointed out that Brown (1954, pp. 332, 683) considered the name to be derived from the Greek *lepis* (f., scale) and *omis* (f., a fish); in this Brown was not consistent since he gave as an example *Lepomis auritus* with a masculine ending. Bailey & Robins accepted Brown's derivation and treated *Lepomis* as feminine, 'correcting' a number of specific names to *Lepomis aurita*, *L. cyanella*, *L. gibbosa*, etc. They added that all these names were

incorrectly assigned masculine endings in the 1980 and earlier editions of the American Fisheries Society's *List of Common and Scientific Names of Fishes from the United States and Canada* (Robins et al., 1980).

4. We do not accept Bailey & Robins' argument that *Lepomis* should be treated as feminine on account of the etymology suggested by Brown (1954) and have sought the views of Professor H.D. Cameron (Professor of Greek and Latin, Adjunct Curator in the Museum of Zoology, University of Michigan). In a letter (29 January 1990) to the Executive Secretary of the International Commission on Zoological Nomenclature, Professor Cameron wrote:

> 'It is perfectly clear that *Lepomis* is not a properly formed Greek compound, no matter what Rafinesque thought he was doing. The rules of Greek noun formation would not permit such an invention. Rafinesque, by his inattention to philological nicety, created a problem which cannot be solved by appeal to etymology or grammar. I am convinced that they [the authors of this application] have rightly construed what Rafinesque thought he was doing, but still his result is grammatically unacceptable. It is for this reason that... I have come round to the opinion that the name must be legally considered an arbitrary combination of letters, and the gender determined by the original author'.

Professor Cameron added that, since *Lepomis* ended with the feminine suffix *-omis*, it could be argued under Article 30b of the Code that the name should be treated as feminine irrespective of Rafinesque's original intentions on etymology and gender.

5. We consider that, irrespective of the derivation of the name *Lepomis* and since it is 'almost universally regarded as masculine' (Bailey & Robins, 1988, p. 100) in accordance with Rafinesque's original intention, it would be in the interests of stability for it to be ruled by the Commission as masculine.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers to rule that the gender of *Lepomis* Rafinesque, 1819 is masculine;
(2) to place on the Official List of Generic Names in Zoology the name *Lepomis* Rafinesque, 1819 (gender: masculine, as ruled in (1) above), type species by original designation *Labrus auritus* Linnaeus, 1758;
(3) to place on the Official List of Specific Names in Zoology the name *auritus* Linnaeus, 1758, as published in the binomen *Labrus auritus* (specific name of the type species of *Lepomis* Rafinesque, 1819).

Acknowledgements

We thank Reeve M. Bailey and Howard D. Cameron, University of Michigan; Brooks M. Burr, Southern Illinois University at Carbondale; C. Richard Robins, University of Miami; and James E. Shelton, University of Tennessee for their views on the derivation and gender of *Lepomis* and comments on an earlier draft of this petition. William E. Eschmeyer, California Academy of Sciences; Larry M. Page, Illinois Natural History Survey; and Reeve M. Bailey provided copies of papers unavailable to us. Thanks also to the many North American ichthyologists who expressed interest in the timely resolution of this matter by indicating their feelings on the gender of *Lepomis*.

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Case 2141

Rana sphenocephala Cope, 1886 (Amphibia, Anura): proposed precedence over *Rana utricularius* Harlan, 1826

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Abstract. Conservation of the name *Rana sphenocephala* Cope, 1886 for a common American leopard frog by suppression of *R. utricularius* Harlan, 1826 was proposed in 1977. The latter name was essentially unused because it was considered a synonym of *R. pipiens* Schreber, 1782, but it was revived in 1974 as a supposed senior synonym of *R. sphenocephala*. Objections on taxonomic grounds to the proposed suppression of *R. utricularius* prevented completion of this case; it is now proposed that *R. sphenocephala* be given precedence over *R. utricularius*.

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1. In 1977 we published an application (BZN **33**: 195–203) for the conservation of the species-group name *sphenocephala* Cope, 1886 (p. 517). As was stated in that application, Cope's name (usually cited as from Cope, 1889) has been extensively used for a century, either as *Rana sphenocephala* or as *R. pipiens sphenocephala*, for a leopard frog from the south-eastern United States; it was first published (as *R. halecina sphenocephala*) to replace *R. oxyrhynchus* Hallowell, [1856] (p. 142), which is a junior primary homonym of the name of an African frog, *R. oxyrhynchus* Smith, 1849.

2. *R. oxyrhynchus* Hallowell, [1856] was published for a leopard frog from Florida. A more northerly distributed taxon is *R. pipiens* Schreber, 1782, of which *R. halecina* Daudin, 1802 is a junior subjective synonym. As discussed in the original application, and in the references cited there and below, *pipiens* and *sphenocephala* are taxonomically distinct within the '*R. pipiens* complex'. Frogs of this group are very widely studied for a variety of purposes.

3. In 1826 Harlan (p. 60) described *R. utricularius* from Pennsylvania and New Jersey, but, as we discussed previously, this did not become the accepted name for any taxon because of the seniority of *pipiens* or *halecina*, and it had been unused for very many years before being resurrected by Pace (1974). Pace used the spelling '*utricularia*', but *utricularius* is a noun meaning 'bagpiper'. In adopting the name, Pace considered that Harlan had differentiated his *utricularius* from *halecina* (=*pipiens*) in ways which

showed that *utricularius* was a senior synonym of *sphenocephala*, but we have given reasons (BZN **33**: 197–198) for disputing this synonymy and for considering that *utricularius* corresponded to *pipiens*. Pace (1974) went further, and proposed two subspecies, *R. utricularia utricularia* and *R. u. sphenocephala* (the latter considered to be restricted to peninsular Florida), but her basis for this was mistaken (BZN **33**: 199–200). She designated a specimen from Philadelphia and one from Volusia County, Florida as neotypes of *u. utricularia* and *u. sphenocephala* respectively.

4. In our original application we proposed the suppression of the name *R. virescens*, in addition to that of *R. utricularius*. As mentioned in paras. 2 and 10 of that application, *virescens* was not made available until Cope, 1889 (p. 397), although Cope assumed that it was available from earlier authors. Since *virescens* is junior to *sphenocephala* and *utricularius*, has been used only once in the last 50 years and Cope's concept of the species was composite (including *pipiens*, *sphenocephala* and perhaps other frogs; BZN **33**: 200), we do not now propose any formal action concerning it.

5. Our proposal to conserve *sphenocephala* by suppressing *utricularius* received support from 18 zoologists (BZN **34**: 199–200). However eight authors (BZN **39**: 80–84) objected to the suppression of *utricularius*, on the grounds that this name had acquired some usage since Pace (1974) and that the extent of speciation within the '*R. pipiens* complex' was not fully worked out. With a reply (BZN **39**: 84–90), we noted that the Commission Secretariat had been given a list of 103 references using *sphenocephala* from the 50 years before Pace's action. We also provided 46 similar references from the following seven years, during which time *utricularius* had been little used. While agreeing that the taxonomy of the leopard frogs needed further studies we reiterated (BZN **39**: 89) that the replacement of *sphenocephala* by *utricularius* had been in error, and was destabilizing and contrary to the Code.

6. Because the Commission cannot form taxonomic judgements and objection had been made to the suppression of *utricularius* this case has remained unresolved, with consequent risk to stability. In correspondence the Executive Secretary has suggested that *sphenocephala* Cope, 1886 could be given precedence over *utricularius* Harlan, 1826 whenever the two names are considered to be synonyms. We believe that this course will maintain stability.

7. We have given the Commission Secretariat a (non-exhaustive) list of 11 works since 1982 which have used *sphenocephala*. These include: Frost (1985), *Amphibian Species of the World*; the major work by Duellman & Trueb (1986), *Biology of Amphibians*; and Ashton & Ashton's 1988 handbook on the amphibians of Florida. Many journal papers have also used *sphenocephala*. In contrast very few papers have used *utricularius*: three which do, none of them taxonomic or with an implication that there is more than one southern leopard frog, are Mushinsky (1985), Alford (1986) and Wilbur & Semlitsch (1990). The recent check list of Collins (1990) has unfortunately followed Pace (1974) in giving (on p. 13) both *R. utricularia utricularia* and *R. u. sphenocephala*.

8. For the reasons set out above and those previously published in the *Bulletin*, we now withdraw our previous proposals (BZN **33**: 201) and instead ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to rule that the name *sphenocephala* Cope, 1886, as published in the trinomen *Rana halecina sphenocephala*, is to be given precedence over the name *utricularius* Harlan, 1826, as published in the binomen *Rana utricularius*, whenever the two names are considered to be synonyms;

(2) to place on the Official List of Specific Names in Zoology the following names:
   (a) *sphenocephala* Cope, 1886, as published in the trinomen *Rana halecina sphenocephala*, with the endorsement that it is to be given precedence over the name *utricularius* Harlan, 1826, as published in the binomen *Rana utricularius*, whenever the two names are considered to be synonyms;
   (b) *utricularius* Harlan, 1826, as published in the binomen *Rana utricularius*, with the endorsement that it is not to be given priority over the name *sphenocephala* Cope, 1886, as published in the trinomen *Rana halecina sphenocephala*, whenever the two names are considered to be synonyms.

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[A comment on this application appears in BZN **47**: 298–299].

Comment on the proposed placement of HYDROBIIDAE Troschel, 1857 (Mollusca, Gastropoda) on the Official List of Family-Group Names

(Case 2699; see BZN **47**: 104–109)

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One of the proposals in this application (BZN **47**: 107, para. 13 (4)) is to place the family-group name HYDROBIIDAE Troschel, 1857 (type genus *Hydrobia* Hartmann, 1821) on the Official List of Family-Group Names. However, this name is a junior homonym of HYDROBIIDAE Mulsant, 1844 (type genus *Hydrobius* Leach, 1815), a name in current use for a subfamily or tribe of HYDROPHILIDAE (Insecta: Coleoptera).

The name in Coleoptera was first proposed in French form as a 'branche' HYDROBIAIRES (Mulsant, 1844, p. 116), which was further divided into two 'rameaux', including HYDROBIATES (Mulsant, 1844, p. 117). The name was used again in French form as the tribe HYDROBIIDES by Lacordaire (1854, p. 454). It was apparently first latinized as HYDROBII by Fairmaire & Laboulbène (1855, p. 227). Since then, the name has come into general use for a large group of HYDROPHILIDAE, treated as either a tribe HYDROBIINI of the subfamily HYDROPHILINAE or a separate subfamily HYDROBIINAE; in both cases, subgroups are often recognized that include a subtribe HYDROBIINA or tribe HYDROBIINI, respectively. The family-group name has generally (but not universally) been attributed to Mulsant (1844), hence is available from that date (Article 11f(iii) of the Code).

Some representative monographs or general works showing usage of HYDROBIINAE, HYDROBIINI and/or HYDROBIINA as valid groups include LeConte (1861), Horn (1873), Bedel (1881), Kuwert (1890), Ganglbauer (1904), Reitter (1909), Knisch (1924), Orchymont (1942), Blackwelder (1944), Brues et al. (1954), Crowson (1955), Arnett (1963, 1985) and Hansen (1987). At the highest recently-used rank, HYDROBIINAE includes about 30 genera and over 700 described species, or about a third of the family HYDROPHILIDAE (Hansen, 1987). At this level, several alternative (but junior) family-group names based on included genera are available. At the lowest rank, however, the nominotypical subgroup (tribe or subtribe) has no available alternative family-group names (Hansen, 1990).

The Code (Article 55b) requires that cases of homonymy in family-group names resulting from type genera with similar (but not identical) names must be referred to the Commission for a ruling to either: (a) observe priority and replace the junior homonym (in this case, the gastropod HYDROBIIDAE Troschel, 1857), or (b) amend the stem of one of the generic names involved to remove the homonymy. Since we are not familiar with available junior synonyms or other potential solutions concerning the use of HYDROBIIDAE in Mollusca we refrain from making any specific proposal here, and refer this problem to malacologists for further action.

Until a specific proposal dealing with this homonymy is submitted to the Commission and a ruling made, we feel that HYDROBIIDAE Troschel, 1857 should not be placed on the Official List as proposed on BZN **47**: 107.

The status of HYDROBIIDAE Troschel is not directly relevant to resolving the main problems addressed in Case 2699. The present comment illustrates a difficulty that may arise in applications designed to address other problems.

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Comments on the proposed conservation of *Fryeria* Gray, 1853 and *F. rueppelii* Bergh, 1869 (Mollusca, Gastropoda)

(Case 2682; see BZN **46**: 161–164)

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Gray (1853) did not use *pustulosa* as a new scientific name when establishing *Fryeria* (cf. BZN **46**: 162, para. 4), but just referred it to Rüppell. There is therefore no new species *Fryeria pustulosa* Gray, 1853; Article 49 of the Code applies in this case, and Bergh's (1869) proposal of the new name *rüppelii* for *Phyllidia pustulosa* sensu Rüppell non Cuvier is entirely in order. The Commission cannot suppress the non-existing name *Fryeria pustulosa* Gray, 1853, but it can designate *F. rueppelii* Bergh, 1869 as type species of *Fryeria*.

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While agreeing wholeheartedly with the proposed conservation of *Fryeria* Gray, 1853, the following comment is necessary regarding the name of the type species. Brunckhorst et al. are correct in stating that the type species is, by deliberate use of misidentification (Article 11i), *Fryeria pustulosa* Gray, 1853. They are incorrect however to claim that this name is an unused senior synonym of *Fryeria rüppelii* Bergh, 1869, a taxon of somewhat dubious nomenclatural validity and unstable subsequent spelling. Usages of *F. pustulosa* Gray, 1853 include:

1. Martens' (1870, p. 56) summary of Bergh's monograph: '*Fryeria rüppellii* = *Phyllidia pustulosa* of Rüppell, but not of Cuvier = *Fr. pustulosa* (Gray), Red Sea'. Martens indicated the authors of valid names by bracket enclosure.

2. Risbec (1929, pp. 45–49, figs. 1–9) identified and figured a specimen from Madagascar as '*Fryeria pustulosa* Gray. Synonymes: *Phyllidia pustulosa* Ruppell. *Fryeria Ruppellii* Bergh'. It is also worth noting that Vayssière (1912, p. 87) described two specimens from the Gulf of Aden which he identified as '*Fryeria pustulosa*, Rüppell, 1828. Syn.: *Fryeria ruppelli* Bergh', a nearly but not quite correct nomenclatural solution of the species name. Fischer (1883, p. 530) and Tryon (1883, p. 392) both listed the species as '*Fryeria pustulosa*, Ruppell' without further synonymy.

3. Risbec (1953, pp. 13–15, fig. 1) identified and figured a specimen from New Caledonia as '*Fryeria pustulosa* Gray, 1853. (Syn.: *Fryeria ruppelli* Bergh)'.

In view of the nomenclatural confusion attending the species name *rüppelii* Bergh, 1869, my opinion is that (1) priority should apply, and (ii) use of *pustulosa* Gray, 1853 in the binomen *Fryeria pustulosa* will not cause any instability in opisthobranch gastropod literature, despite there being another species in the PHYLLIDIIDAE with the same specific name, i.e. *Phyllidia pustulosa* Cuvier, 1804. It is therefore advocated that the application be amended to have *Fryeria pustulosa* Gray, 1853 confirmed as the type species, by monotypy, of *Fryeria* Gray, 1853, to have both *Fryeria* Gray, 1853 and *F. pustulosa* Gray, 1853 placed on the respective Official Lists, and to have *rüppelii* Bergh, 1869 and any subsequent incorrect spellings placed on the Official Index.

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In response to the above comments of Holthuis and Burn we would like to summarise our case briefly. In this summary all spellings of Bergh's name have been corrected to '*rueppelii*' to avoid confusion (see para. 9 of our application).

Our case involves two distinct species of PHYLLIDIIDAE. One species was named *Phyllidia pustulosa* by Cuvier (1804). The second species was misidentified as *Phyllidia pustulosa* Cuvier by Rüppell & Leuckart (1830 or 1831). Gray (1853) considered this second species to belong to a distinct genus, which he named *Fryeria*. He mentioned *P. pustulosa* Cuvier and was doubtful of the synonymy of this and the '*P. pustulosa* Rüppell' on which he based *Fryeria*. Clearly under Article 11i (Deliberate use of a misidentification) and the appended Example the name of this second species is *Fryeria pustulosa* Gray, 1853, available because it is the type of a new nominal genus.

Bergh (1869) considered that having two related, though not congeneric, species with the same specific name would lead to continuing confusion. He proposed the new name *Fryeria rueppelii* to obviate the confusion. Although this name is unnecessary under the Code it has been used by most subsequent nudibranch taxonomists. Our submission asked the Commission to use its plenary powers to legalise this usage, since the recent proposal by Yonow (1986) of the generic name *Reyfria* clearly shows that confusion still surrounds the use of *pustulosa* for the two related species.

Risbec (1953) was correct in using *Fryeria pustulosa* Gray for Rüppell & Leuckart's species but it is noteworthy that he later changed his usage to *Fryeria rueppelii* Bergh when (Risbec, 1956) reporting both that species and *Phyllidia pustulosa* Cuvier from Vietnam.

The Commission Secretariat has a list of 43 works which have dealt with Rüppell & Leuckart's taxonomic species. Very few have used *Fryeria pustulosa* while the great majority have employed Bergh's replacement name *Fryeria rueppelii* (in various spellings), because it removes the confusion of using *pustulosa* for the two species. Burn, who now wishes to resurrect the name *Fryeria pustulosa*, has himself used the name *Fryeria rueppelii* Bergh, rather than the correct *Fryeria pustulosa* Gray, when reporting that species and *Phyllidia pustulosa* Cuvier from Australia (Burn, 1975).

Burn gives two reasons for being opposed to our submission. First, he states there is 'nomenclatural confusion attending the species name *rueppelli*'. In our opinion there is no confusion in the use of the name *Fryeria rueppelii* Bergh, other than in spelling. Secondly, he states that use of '*pustulosa* Gray will not cause instability'. As most authors have deliberately avoided this usage to prevent confusion, Burn's prediction is not well-founded. Paragraph 8 of our original submission (BZN **46**: 162) shows that confusion has been caused by the misapplication of the names *P. pustulosa* Cuvier and *F. pustulosa* Gray.

Despite the above comments by Holthuis and Burn we still feel that our interpretation of the Code and of the situation is correct. Our aim is to have *Fryeria rueppelii* Bergh, 1869 (new name for *Phyllidia pustulosa* sensu Rüppell & Leuckart non Cuvier, i.e. *Fryeria pustulosa* Gray, 1853) designated as the type species of *Fryeria*. We would be happy for the Commission to reach this decision by any appropriate procedure.

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Comment on the proposed precedence of *Bathynomus* A. Milne Edwards, 1879 (Crustacea, Isopoda) over *Palaega* Woodward, 1870

(Case 2721; see BZN **47**: 27–29, 212–213)

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Palaega Woodward, 1870 was established as a genus of isopods nine years prior to the establishment of *Bathynomus* A. Milne Edwards, 1879. The name *Palaega* has been used repetitively throughout the period from 1870 to the present and for this reason must be considered a valid name. The group is well known in paleontological literature and, for that reason alone, there is no substantive basis for sustaining the proposed exercise of the plenary powers of the Commission to have *Bathynomus* considered the name of precedence.

Description of *Palaega goedertorum* Wieder & Feldmann, 1989 has established the synonymy of *Palaega* and *Bathynomus* with much greater certainty than had been possible previously, based upon preservation of the entire dorsal carapace. The morphological similarity of specimens referred to *Palaega goedertorum*, *P. carteri* Woodward (type species of the genus) and *Bathynomus giganteus* A. Milne Edwards (type species of *Bathynomus*) permits clear demonstration of the generic synonymy. Although Martin & Kuck (BZN **47**: 27–29) point out that many isopod genera cannot be identified unequivocally by examination of the dorsal carapace their argument is not valid in this case. In point of fact, *Palaega* (= *Bathynomus*) can be clearly distinguished from other isopod genera by the anatomy of the dorsal surface.

Martin & Kuck (their para. 2) correctly observe that some fossil forms have been wrongly assigned to *Palaega*. This was previously noted by Wieder & Feldmann (1989), who suggested removal of certain species from the genus. Nevertheless, improper assignment to a properly proposed and defined genus does not, and cannot, warrant even conditional suppression of its name.

Martin & Kuck (para. 3) suggest that the synonymy of *Palaega* and *Bathynomus* is 'unlikely to be followed by other workers'. Although some workers may exercise the subjective judgement that *Paleaga* and *Bathynomus* are not synonymous, those that do accept the synonymy have no recourse but to adopt the senior name. Wieder & Feldmann (1989) did not accept the priority of *Palaega* on any basis other than clear demonstration of subjective synonymy and application of the rules of priority. To do otherwise would clearly not be in the best interest of stability of nomenclature.

The suggestion by Martin & Kuck (their para. 4) that giving *Bathynomus* precedence over *Palaega* would serve the interests of stability and would avoid confusion is false. *Palaega* is as well known in paleontological literature as *Bathynomus* is in neontological literature. No criteria are defined in the Code for the conditional suppression of a senior subjective synonym other than the maintenance of a stable and universally acceptable nomenclature (Article 79). The only argument that would seem to apply in this case would be that names proposed for living organisms should be given precedence over those originally based on fossils. I argue that that concept must be rejected.

Therefore, no substantive basis for exercise of the plenary powers to reject *Palaega* Woodward, 1870 in favor of *Bathynomus* A. Milne Edwards, 1879 has been established, and I suggest that the proposals on BZN **47**: 28 be denied.

Editorial Note. The comments below are from members of the Nomenclature Committee of The Crustacean Society (Secretary: R.B. Manning, *National Museum of Natural History, Washington, D.C. 20560, U.S.A.*)

(2) Gary C.B. Poore
Division of Natural History, Museum of Victoria, 71 Victoria Crescent, Abbotsford, Victoria 3076, Australia

Keiji Baba
Kumamoto University Faculty of Education, Kurokami 2–40–1, Kumamoto, 860 Japan

Martin & Kuck have presented a well argued case for precedence of *Bathynomus* over *Palaega*. Doubt about the states of many characters of fossils will always remain no matter how well preserved they are and it follows that the synonymy of fossil taxa with modern forms can only be questionable. Authors who suggest otherwise express only a subjective opinion which is unlikely to receive support from the majority. We certainly do not support such a view and one of us (G.C.B.P.), in a work in progress with N.L. Bruce, will not accept the precedence of *Palaega*. This attitude is supported when one looks at the most recent diagnosis of *Bathynomus* (Bruce, 1986). Most of the characters diagnosing the genus are not discernible in many fossils.

The proposal before the Commission should be unnecessary but we support it nevertheless.

(3) J.Y. Liu

Chinese Crustacean Society, Institute of Oceanology, Academia Sinica, 7 Nan-Hai Road, Quingdao, People's Republic of China

Considering that (i) *Bathynomus* is a well known and clearly defined genus, whereas *Palaega* is a vague taxon based on incomplete fossils, and (ii) *Bathynomus* is a widely recognized name in deep-sea biology and is often included in popular accounts of Crustacea and of deep-sea life, and is the only name that has been used for these isopods since 1879, I agree with Martin & Kuck's proposal to give precedence to *Bathynomus* over *Palaega*.

(4) L.B. Holthuis

Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands

Comparing the description of the type species of *Palaega*, *P. carteri*, with *Bathynomus giganteus* it seems most unlikely that the two belong to the same genus. In the course of time many other fossil species have been added to *Palaega*; these species, usually known only from fragments, probably belong to various genera but some may indeed be *Bathynomus*. However, unless and until it is proved that *Palaega carteri* is a *Bathynomus*, the latter generic name has nothing to fear.

Giving the name *Bathynomus* precedence over *Palaega* would do no harm and may set aside fears that eventually, if the two are synonymized, *Bathynomus* will disappear. Therefore, I am willing to support the application.

(5) Thomas E. Bowman

Department of Invertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

I do not see the need for the Commission to act on this application. Wieder & Feldmann's *Palaega goedertorum* seems to be a *Bathynomus* because of the large size and coarsely toothed posterior margin of the pleotelson, but that does not make *Palaega carteri*, the type species of *Palaega*, also a *Bathynomus*. The pleotelson of *P. carteri* resembles those of species of *Aega* Leach, 1815 (especially *A. dentata* and *A. gracilipes*) rather than those of *Bathynomus* spp., and if *Palaega* and *Bathynomus* are kept separate for the time being there should be no cause for confusion nor need for the Commission to act. Wieder & Feldmann did not give persuasive arguments for combining these genera, and might better have simply placed their new species in *Bathynomus*.

(6) Austin B. Williams

National Marine Fisheries Service, Systematic Laboratory, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

I disagree with Martin & Kuck (BZN **47**: 27, para. 2) that '*Palaega* is of doubtful validity'. *Palaega* may be a 'form' genus, but it has a type species, *P. carteri*. Nevertheless, I agree with the applicants' stand that *Bathynomus* and *Palaega* are distinct entities. The question is, does the Commission need to use plenary powers to give precedence to *Bathynomus* over *Palaega*?

This seems an ordinary case of synonymy. The Wieder & Feldmann material (*P. goedertorum*) can well be considered as a species of *Bathynomus* closely related to the extant *B. giganteus*. *Palaega carteri* and its allies can continue to be regarded as members of a 'form genus', admittedly somewhat nebulous because of their incompleteness.

Comments on the proposed conservation of *Griffithides* Portlock, 1843 and *Bollandia* Reed, 1943 (Trilobita)

(Case 2762; see BZN **47**: 114–116, 216)

(1) Brian A. Engel
The University of Newcastle, Newcastle, N.S.W. 2308, Australia

I wish to record my strong endorsement for the conservation of the names *Griffithides* Portlock, 1843 and *Bollandia* Reed, 1943. Both trilobite names are entrenched in the relevant literature and, as outlined by Professor Hahn, adoption of a long neglected type designation for *Griffithides* would cause extensive and unacceptable confusion.

(2) Carsten Brauckmann
Wuppertal Fuhlrott-Museum, Auer Schulstrasse 20, 5600 Wuppertal 2, Fed. Rep. Germany

I completely agree with this application and trust that *Griffithides* and *Bollandia* will be conserved in their accustomed sense.

(3) S.F. Morris
The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.

Acceptance of *Asaphus globiceps* as the type species of *Griffithides* would be disastrous. I have doubts as to whether Oldham made a valid type designation (see BZN **47**: 114, para. 2), but if he did then I support Hahn's application to conserve *Griffithides longiceps* as the type species.

Comments on the proposed conservation of the specific names of *Culex stigmatosoma* Dyar, 1907 and *C. thriambus* Dyar, 1921 (Insecta, Diptera)

(Case 2702; see BZN **46**: 247–249; **47**: 215–216)

(1) William K. Reisen
Arbovirus Field Station, University of California, Bakersfield, California 93312, U.S.A.

The resurrection of *Culex stigmatosoma* and the rejection of *C. peus* as the scientific name for the 'banded foul-water mosquito' has been accepted by most culicidologists, who can readily understand that both names refer to the same species. However, transferring *C. peus* to replace *C. thriambus* would create endless problems for years to come, since the biology and arbovirus affinities of these two species differ markedly. In doing literature searches, one could never be sure which species the author was addressing, since name changes are often adopted only slowly.

I urge the Commission to approve this application as rapidly as possible. As a mosquito ecologist, I need to know which name to use in my research papers, and as an Editor of the *Journal of Medical Entomology* I need direction in dealing with submitted manuscripts. Any delay will only enhance the chances of confusion in the literature.

(2) Richard Garcia
Agricultural Experiment Station, 1050 San Pablo Avenue, Albany, California 94706, U.S.A.

I strongly support this application to suppress the name *Culex peus* Speiser, 1904 in order to avoid massive confusion in the literature.

(3) Lewis T. Nielsen
American Mosquito Control Association Inc., 707 East Prien Lake Road, Lake Charles, Louisiana 70606–5416, U.S.A.

As Editor of The American Mosquito Control Association's journal *Mosquito Systematics*, the only journal exclusively devoted to mosquito taxonomy and related disciplines, I am fully in support of the proposal that the names of the American species *Culex stigmatosoma* Dyar, 1907 and *Culex thriambus* Dyar, 1921 be stabilized and that the name *Culex peus* Speiser, 1904 be suppressed.

The unfortunate misidentification of the type specimen of *C. peus* and the failure to recognize that it was conspecific with *C. thriambus* and not *C. stigmatosoma* has resulted in much confusion. There was a great reluctance among mosquito systematists to accept Stone's 1958 act of synonymizing *C. stigmatosoma* under *C. peus* (see BZN **46**: 248, para. 7(2)), especially since *C. stigmatosoma* had been accepted as a valid species for 51 years (1907–1958) and is the subject of a considerable body of literature.

Culex thriambus in turn has been accepted as a species of the southwestern United States, Mexico and Central America for 67 years (1921–1988). Correspondence with subscribers and authors of articles in *Mosquito Systematics* and other mosquito taxonomists indicates unanimous support of the recommendations of Eldridge & Harbach.

(4) Bruce A. Harrison
12215 Parkton Court, Ft. Washington, Maryland 20744, U.S.A.

As a mosquito taxonomist I firmly believe in the use of names based on priority. However, on rare occasions priority impedes progress and should be overruled. This is certainly true in regard to this case. If *C. peus* is not suppressed, the literature regarding

C. peus, *C. stigmatosoma* and *C. thriambus* will be confused for many years. Accordingly, I strongly urge the Commission to approve the proposals of Eldridge & Harbach.

(5) R.A. Ward
Department of Entomology, Walter Reed Army Institute of Research, Washington, D.C. 20307–5100, U.S.A.

The 'banded foul-water mosquito' is of great economic and potential medical significance in the far western U.S.A., i.e. the states of California, Oregon and Washington, where it can be a serious biting pest of humans and a potential vector for arboviral diseases. With increasing urbanization, it is assuming greater importance.

The American Mosquito Control Association is now using the name *Culex stigmatosoma* Dyar for the species as a matter of editorial policy in their *Journal*. Three papers have been printed since 1989 using the name *C. stigmatosoma*. Readers of the *Journal*, who are primarily concerned with research and control of mosquitoes, have readily accepted the name change. If a decision was made to reject this case there would be considerable confusion amongst applied entomologists.

Comments on the stability of fish family names

(See BZN **47**: 97–100, 138)

(1) Maurice Kottelat
Zoologische Staatssammlung, Münchhausenstrasse 21, D-8000 München 60, Fed. Rep. Germany

I endorse Wheeler's view that changes to spelling of family-group names for purely grammatical reasons have unfortunate and far-ranging implications for stability. I also support his call for a specialist committee on fish nomenclature.

Perhaps for euphonic reasons (as is obvious to those whose mother tongue is a Romance language) authors of the last century preferred family names to end in -IDAE rather than -IDIDAE.

(2) John E. Randall
Bishop Museum, 1525 Bernice Street, Honolulu, Hawaii, U.S.A.

I am in full agreement with Wheeler. The 'corrections' by Steyskal (1980) on grounds of grammar have done a real disservice to ichthyology. As Wheeler has pointed out, some ichthyologists have followed these and others have not. I am with the latter group. In a book on 1100 species of fish of the Great Barrier Reef and the Coral Sea I am not using the emended names. I recommend that these all be rejected, rather than the Commission deal with them one by one, and that the names so long in consistent use be maintained.

(3) Storrs L. Olson
Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560, U.S.A.

In attempting to counter arguments (Steyskal, 1980) for using family-group names that are grammatically correct, Wheeler joins the ranks of those who perceive the threat of 'confusion' lurking behind every letter in a scientific name. Wheeler also maintains that the changes Steyskal proposed will render many names 'almost unpronouncable'. Yet most of the cases he discusses involve no more than the insertion of the syllable 'id', so that the resulting name would still be easily recognized by any intelligent person familiar with the previous spelling in the first place. Perhaps the 'fishery workers, environmental archaeologists, and ecologists', whose interests Wheeler seeks to protect, should be concerned by his implied condescension that even those of their number perceptive enough to notice such minor changes would not have the mental capability to avoid being confused by them. As far as pronunciation is concerned, although it can be argued that 'idid' is exactly twice as difficult to pronounce as 'id', such iteration should not present an insurmountable obstacle to anyone not already in need of a speech therapist.

Those who create nomenclature and are responsible for its proper use ought to have some knowledge of the basic Latin and Greek roots of scientific words and care about their preservation. With such knowledge one understands that grammatical precision actually prevents confusion, whereas grammatical lapses may create it. An excellent case in point is one of the instances mentioned by Wheeler, the incorrect name 'CERATODIDAE' versus the correct CERATODONTIDAE. The grammatically correct form is immediately recognizable as being derived from the Greek roots *cerato-* (horn) and *-odous* (tooth) whereas the incorrect form might be taken to be derived from the Latin *cera* (wax) and *todus* (a small bird). Distinguishing between these two possible etymologies, one of which is completely nonsensical, is not, in my opinion, a matter of 'grammatical nicety'.

Furthermore, there are among fishes, especially fossils, a host of genera ending in *-odus* that are the basis of family-group names that have been correctly formed with the ending -ODONTIDAE, e.g. *Synodus*, *Pimelodus*, *Hemiodus*, *Helodus*, *Pristodus*, *Copodus*, *Cochliodus*, *Ptychodus*, *Onychodus*, *Psammodus*, *Chirodus*, *Pycnodus*, etc. If Wheeler were heeded there would then be two sets of names based on the same root, one that is correctly formed and another (e.g. 'CERATODIDAE') that is not. The god Stability is unlikely to find a reliable servant in the demon Inconsistency. The advantages of clarity of meaning and consistency of usage that are conferred by precise grammar far outweigh the unsubstantiated fear that legions of fisheries biologists will be overcome by confusion as a result of adherence to grammatical standards.

Comments on the proposed confirmation of the spelling of LIPARIDAE Gill, 1861 (Osteichthyes, Scorpaeniformes)

(Case 2440; see BZN **45**: 130–131, 292; **46**: 45–46; **47**:97–100, 138)

(1) H.D. Cameron
Department of Classical Studies, University of Michigan, Ann Arbor, Michigan 48109, U.S.A.

The argument by Steyskal (1980) that the name LIPARIDAE Gill, 1861 is grammatically incorrect and should be replaced by LIPARIDIDAE is not well founded. It assumes that the stem of the generic name *Liparis* Scopoli, 1777 would be *Liparid-*, but that is incorrect.

The word 'Liparis' first appears in the Greek geographical writer of the 3rd century B.C. Antigonus of Carystus, who states [my translation] 'Polycritus has written that the river Liparis in Soli was not falsely named, but that it so oils you that you have no need of further unguent'. Evidently it was considered that the name of the river was derived from *liparos*, 'shiny, oily, greasy' (cf. BZN **45**: 130, para. 4). Antigonus used the word in the accusative case '*Liparim*', which shows that the word was a Greek i-stem noun and not a consonant-stem one.

A fish name *Liparis* was an invention of the Renaissance editors of Pliny the Elder, who derived it from the river name. It was from a list of fishes in Pliny that Rondelet (1554) took the name. He explains as follows [my translation]:

> 'I am unwilling, dear reader, to conceal from you so rare a fish, and so very worthy of notice. When I tried to preserve it, it dissolved into oil completely. This occurrence prompted me to name it a *liparis* [in the accusative *liparim*], which Pliny mentions, as if from *liparos*, that is, oily'.

Antigonus of Carystus and Rondelet conclusively show that the stem of *Liparis* is *Lipar-* and not *Liparid-*. Unfortunately the Latin dictionary of Lewis & Short (1879) gave the genitive of Pliny's name as '*Liparidis*'. There was no evidence whatsoever for this: it was nothing more than a lexicographer's guess, and an incorrect one. It is regrettable that it has misled people.

LIPARIDAE Gill, 1861 is grammatically correct.

(2) P.K. Tubbs
Executive Secretary, The International Commission on Zoological Nomenclature

According to Professor Cameron's comment above, the original spelling of the fish family name LIPARIDAE is correct. This is the form which has been in general use and which ichthyologists wish to retain. If this view is accepted there is no formal need for Commission action concerning it, but since there has been controversy over the spelling of the name it could be argued that the placing of LIPARIDAE Gill, 1861 on the Official List of Family-Group Names would be in the interest of stabilizing ichthyological nomenclature.

As noted in Dr Vogt's original application (BZN **45**: 130–131), and in comments which have been received from Drs B.A. Korotyaev and E.P. Nartshuk (*Zoological Institute, Academy of Sciences of the U.S.S.R., Leningrad*) and Dr H. Silfverberg (*Zoological Museum, Helsinki, Finland*), at least three homonymous family-group names occur in the entomological literature. These are: (i) in Lepidoptera, LIPARINI Boisduval, 1834 (p. 134; also spelled LIPARIDINI), 'invalid' (cf. Article 39 of the Code) because the name of the type genus *Liparis* Ochsenheimer, 1810 is a junior homonym; (ii) in Coleoptera, LIPARIDAE Pierce, 1919 (p. 23; also an unavailable 'liparides' mentioned by Latreille, 1829), based on *Liparus* Olivier, 1807 and occasionally used at tribe rank; (iii) in Diptera, LIPARINI Nartshuk, 1987 (p. 224), based on *Lipara* Meigen, 1830. The first two of these raise complications of a purely nomenclatural kind. The name LIPARINI Boisduval, 1843 is not in use, but it might be held that it disqualifies

LIPARIDAE Gill, 1861 by reason of homonymy within the family-group. It would seem undesirable that a family-group name which was little used and which can never be used again should be regarded as threatening a generally accepted but junior homonym [for a comment on homonymous family names when one is based on a suppressed generic name see BZN **47**: 167]. In Coleoptera, there is a junior objective synonym (unnecessary replacement name) of *Liparus*, i.e. *Molytes* Schoenherr, 1823, on which was based 'MOLYTIDES' Schoenherr, 1823 (col. 1143). Although *Molytes* itself has not been used, MOLYTINAE Schoenherr, 1823 has had limited recent use at subfamily or tribe rank (Kuschel, 1987; Zherichin, 1987); this was because *Liparus* is classified within the well-known HYLOBIINAE W. Kirby, 1837, the name of which is junior to MOLYTINAE. There is no doubt a case for conserving HYLOBIINAE.

Drs Korotyaev and Nartshuk (see above) have suggested that the dipteran family-group name LIPARINI Nartshuk, 1987 could be emended to LIPARAINI if this were necessary to avoid homonymy.

Dr Vogt's application (BZN **45**: 130–131) was concerned solely to protect the spelling of the fish family name LIPARIDAE Gill, 1861. According to Professor Cameron this original form is the correct spelling: since it is in wide use and since no confusion is likely between it and the insect family-group names there is little reason to alter its spelling. Because there has been controversy over the spelling during the past decade it is appropriate to ask the Commission to place LIPARIDAE Gill, 1861 on the Official List of Generic Names, as Dr Vogt has done. There is clearly a need to consider the (junior) family-group names based on *Liparus* and *Lipara* (and the availability of LIPARINI Boisduval), but I suggest that this can be done in due course without adding delay to Dr Vogt's case.

Additional references

Boisduval, J.B.A. 1834. *Icones historiques des Lépidoptères...*, vol. 2. 192 pp., 37 pls. Roret, Paris.

Kuschel, G. 1987. The subfamily Molytinae (Coleoptera, Curculionidae): general notes and description of new taxa from New Zealand and Chile. *New Zealand Entomologist*, **9**: 11–29.

Pierce, W.D. 1919. Contributions to our knowledge of the weevils of the superfamily Curculionoidea. *Proceedings of the Entomological Society of Washington*, **21**: 21–36.

Schoenherr, C.J. 1823. Tabula synoptica familiae Curculionidum. Vorbericht über die Monographie derselben. *Isis* (von Oken), Jena, **1823**: col. 1132–1146.

Zherichin, V.V. 1987. Curculionidae from Nepal Himalayas. Part 1. Molytinae (Insecta: Coleoptera). *Stuttgarter Beiträge zur Naturkunde, (A)*, **1987**: 411–454.

Comment on the proposed precedence of *Rana sphenocephala* Cope, 1886 (Amphibia, Anura) over *R. utricularius* Harlan, 1826

(Case 2141; see BZN **47**: 283–285)

David M. Hillis
Department of Zoology, The University of Texas, Austin, Texas 78712–1064, U.S.A.

I wholeheartedly support the suggested course of action, and I hope this matter can be resolved quickly. The name *Rana sphenocephala* should be given precedence over

Rana utricularius in the interest of stability; *sphenocephala* has been used consistently for the last century whereas *utricularius* was totally obscure. I agree that not suppressing *utricularius* is a good idea, in case future work shows support for the division within *sphenocephala* suggested by Pace. However, no such division is currently recognized. It is important to preserve the name *Rana sphenocephala* for the southern leopard frog, one of the most common frogs of the southeastern United States. I hope action by the Commission will be rapid so as to prevent further confusion.

OPINION 1622

Heliastes ovalis Steindachner, 1900 (currently *Chromis ovalis*; Osteichthyes, Perciformes): specific name conserved

Ruling

(1) Under the plenary powers the specific name *ovalis* Steindachner, 1900, as published in the binomen *Heliastes ovalis*, is hereby ruled not to be invalid by reason of having been rejected before 1961 as a junior secondary homonym of *Chromis ovalis* Steindachner, 1866.

(2) The name *ovalis* Steindachner, 1900, as published in the binomen *Heliastes ovalis* (not invalid despite having been rejected before 1961 as a junior secondary homonym), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 2681

An application for the conservation of the specific name of *Chromis ovalis* (Steindachner, 1900) was received from Drs W.I. Follett (*California Academy of Sciences, San Francisco, U.S.A.*) & John E. Randall (*Bernice Pauahi Bishop Museum, Honolulu, U.S.A.*) on 29 August 1988. After correspondence the case was published in BZN **46**: 35–37 (March 1989). Notice of the case was sent to appropriate journals. No comments were received.

The serial volume in which Steindachner's paper was published, which included the name *Heliastes ovalis* (p. 502), is dated 1901. However, the paper appeared earlier, in 1900, as a separate entity ('Besonders Abgedruckt'); it was there paginated both as a separate item and as for inclusion in the serial. *H. ovalis* appears on p.'20 [502]'.

The inclusion of pp. '316–318' in the Steindachner (1901) reference cited on p. 37 of the application should be omitted.

Decision of the Commission

On 1 March 1990 the members of the Commission were invited to vote on the proposals published in BZN **46**: 36. At the close of the voting period on 1 June 1990 the votes were as follows:

Affirmative votes — 27: Bayer, Bock, Cocks, Cogger, Corliss, Dupuis, Hahn, Halvorsen, Heppell, Holthuis, Kabata, Kraus, Lehtinen, Macpherson, Mahnert, Martins de Souza, Minelli, Mroczkowski, Nielsen, Nye, Ride, Savage, Starobogatov, Thompson, Trjapitzin, Uéno, Willink

Negative votes — none.

Schuster was on leave of absence.

Original reference

The following is the original reference to the name placed on an Official List by the ruling given in the present Opinion:

ovalis, *Heliastes*, F. Steindachner, 1900, *Denkschriften der Mathematisch-naturwissenschaftlichen Classe der Kaiserlichen Akademie der Wissenschaften Wien*, **70** (for 1901), p. 502 (p. 20 in the separate issued in 1900).

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Benett, E. 1831. *A catalogue of the organic remains of the County of Wilts*. Op. 1609

Work placed on the Official Index of Rejected and Invalid Works
Académie Royale des Sciences de l'Institut de France. 1826. *Rapport sur les Myodaires du Docteur Robineau Desvoidy* (H.M.D. de Blainville, Rapporteur) Op. 1601

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CORRIGENDA

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page 144, line 15	For '*Phyllodoce (Carobia) breviremis* de Quatrefages, 1865' read '*Phyllodoce (Carobia) rubiginosa* Saint-Joseph, 1888'

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